Work-readiness assessments in the Twinsburg Fire Department

By: Timothy A. Morgan
Captain
Twinsburg Fire Department
10069 Ravenna Road
Twinsburg, Ohio 44087

A research project submitted to the Ohio Fire Executive Program

22 July 2009

CERTIFICATION STATEMENT

I hereby certify that the following statements are true:

1. This paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

2. I have affirmed the use of proper spelling and grammar in this document by using the spell and grammar check functions of a word processing software program and correcting the errors as suggested by the program.

Signed: _____

Printed Name: _____

ABSTRACT

All fire departments, including The Twinsburg Fire Department make the assumption that when personnel report for the start of their shift, tour, or operational period that they will be fit for duty and ready to work. Periodically these assumptions are challenged when personnel arrive and are noticeably nursing a seemingly minor illness, injury, fatigue, or manifestations of any number of physical or mental impairments. The problem this study will address is that the Twinsburg Fire Department lacks applicable policy, evaluation tools, and methods for employees to make more objective assessments of work-readiness.

The purpose of this study is to determine the effectiveness of work-readiness assessment within the Twinsburg Fire Department. The research questions this study will investigate are:

1. How do Twinsburg Fire Department, administrators, managers, and employees characterize work-readiness?

2. How does Twinsburg Fire Department's idea of work-readiness compare to that of other organizations?

3. What guidelines exist to aid in the assessment of work-readiness?

The effects of sick, injured, or impaired firefighters on duty at the TFD are not known, but it is important to determine if the potential for negative impact exists and/or warrants action by the department.

Following the literature review, procedures undertaken included internal, and external surveys, and interviews of managers operating in law enforcement, various industries and the military.

The findings of this research would seem to indicate that the Twinsburg Fire Department would benefit from having an established work-readiness evaluation process. The Department

could also benefit from internal discussion on the risk associated with having sick, injured, or impaired employees responding to requests for service, and its' potential impact on departmental operations and personnel, as well as public, safety.

Recommendations are made to develop a set of core values upon which to establish safety policy and practice. Secondly, a process to track the results of allowing potentially impaired (by issues other than illegal drugs or alcohol) employees to remain on duty. Lastly, a work-readiness assessment instrument and related policy should be created for day to day use.

TABLE OF CONTENTS

INTRODUCTION

Statement of the Problem

All fire departments, including The Twinsburg Fire Department make the assumption that when personnel report for the start of their shift, tour, or operational period that they will be fit for duty and ready to work. Periodically these assumptions are challenged when personnel arrive and are noticeably nursing a seemingly minor illness, injury, fatigue, or manifestations of any number of physical or mental impairments. Per Twinsburg Fire Department's *Absences-2* database, since November 20, 1998 there were seven occasions when employees had to be sent home due to the inability to safely fulfill their responsibilities while on duty because of illness or injury. In each instance the shift supervisors were left to their own devises to make that decision. Concern exists that other occasions have existed but were not "caught." *The problem this study will address is that the Twinsburg Fire Department lacks applicable policy, evaluation tools, and methods for employees to make more objective assessments of work-readiness.*

Purpose of the Study

In an attempt to have optimum effectiveness in our operations, one aspect the Twinsburg Fire Department needs addressed is the ability to insure only work-ready employees are on duty. *The purpose of this study is to determine how best to make assessments of work-readiness within the Twinsburg Fire Department.*

Research Questions

The research questions this study will investigate are:

1. How do Twinsburg Fire Department, administrators, managers, and employees characterize work-readiness?

2. How does Twinsburg Fire Department's idea of work-readiness compare to that of other organizations?

3. What guidelines exist to aid in the assessment of work-readiness?

BACKGROUND AND SIGNIFICANCE

The Twinsburg Fire Department (TFD) provides emergency medical service, rescue, and fire protection for the City of Twinsburg, Ohio (Twinsburg) and supplies the same service to Twinsburg Township (Township), via contract. Together, the two political sub-divisions are referred to as our protection district (district). The district is situated between Akron and Cleveland and can be described as a suburban area. The district's diverse characteristics include un-hydranted agricultural areas, middle to high-end residential, retail and commercial, and heavy industrial areas. The 21 square mile district has a population of approximately 22,000, the daytime population that expands well beyond that. TFD employs 33 fulltime and 24 part-time firefighting personnel, all but two of which are paramedics. TFD personnel train regularly in all EMS, rescue, and firefighting disciplines. Fifteen department members actively participate on Summit County's (Ohio) Special Operations Response Teams, which include Hazardous Materials, Technical Rescue, and Water Rescue. TFD's 2,250 responses in 2008 were primarily EMS related calls. TFD operates a fleet of late model apparatus that is well maintained, and equipped with a wide variety of the latest equipment, that responds from two stations, the second having opened in June of 2007.

TFD regularly updates policies and procedures and strives to abide by applicable Federal, State, and local regulations. Additionally, adoption and compliance with National Fire Protection Agency (NFPA) standards is consistently pursued. The health, welfare, and safety of TFD's

employees are of highest priority to the organization, with that in mind TFD and the City of Twinsburg have put in place the following. TFD has a Safety Committee, as recommended by NFPA 1500 (NFPA, 2007) that meets regularly; investigates injuries and accidents; inspects buildings, apparatus, and equipment for safety related issues; and reports to the Chief. Though many TFD members are physically active, a NFPA 1583 (NFPA, 2007) style program has not yet been established. Extensive medical physicals are administered to all employees prior to employment, with fulltime firefighters having to pass the physical evaluation prescribed by Ohio Police and Fire Pension Fund (Ohio Police & Fire Pension Fund, 2007), although annual physicals have not been maid mandatory by the department. Twinsburg employees are subject to random drug testing (Twinsburg, 2006), and there is access to an Employee Assistance Plan for fulltime employees.

With all the efforts to foster a safe and healthy work environment, the occurrences of sick, injured, and/or impaired firefighters on duty has been witnessed by a number of TFD employees, but that number of occurrences has not been quantified. The effects of sick, injured, and/or impaired firefighters on duty at the TFD are not known, but it is important to determine if the potential for negative impact exists and/or warrants action by the department. For the purposes of this project, *impaired* should be understood to include individuals that are fatigued, or being negatively affected by prescription or over-the-counter medications. Illegal drug or alcohol effects are not included in this discussion as those issues are explicitly provided for in the City of Twinsburg policies (City of Twinsburg, 2006).

The first article in TFD's Standard Operating Procedures states that the document's purpose is "To provide all personnel assigned to the Twinsburg Fire Department with guidelines for safe, coordinated, quality operations in the station and on the scene…"(Twinsburg Fire

Department, 1998). The potential impact this study may have on the Twinsburg Fire Department could be the better understanding of the issue of work-readiness, with the potential of being the foundation for new policy or change in existing policy with the intent of fostering a "safe" work environment. The development of an assessment tool would aid in assuring that only work-ready employees are on duty. This would decrease the probability of worker impairment reducing departmental effectiveness in all areas of operation, which better insures that the TFD is capable of rendering service at a reduced risk to responders, victims, property, and the general public.

LITERATURE REVIEW

Looking at this subject from the "safety first" perspective it is important to understand that safety is not measurable. William Lowrance (1976) defines safety as a judgment of the acceptability of risk (pg. 8). Lowrance proceeds to explain that risk, or the probability of an event happening is something that can be objectively defined. The process of determining how safe a thing or an event is comes down to the determination by an individual based on a judgment of whether or not they are willing to accept the risks, based on their personal or social values. Additionally, acceptability is variable, as most individuals will evaluate what is reasonable to accept differently in different circumstances. For example, an employee that is a great advocate of wearing seatbelts at all times while on duty, will opt to ride his motorcycle without wearing a helmet when he is off duty because he views the acceptability of risk differently. As we attempt to come to a reasonable solution Lowrance states again that "reasonableness" is a "phantom citation" as it is judged based on each individuals personal perspective. For an organization to come to a consensus on safety there must be efforts to come to agreement or buy-in to organizational core values.

In recent years the term *presenteeism* has been created and used by human resources and occupational safety professionals with more and more frequency. The way the term is used varies slightly from the way it is defined by Webster's dictionary, but essentially presenteeism means being at work while you are too sick, too injured, too tired, or too emotionally distracted to be fully productive, or to the extent that it may cause undue risk to other employees at work. Sitter (2005) suggests that presenteeism may actually be more costly than absenteeism in the work place based on a 1999 study by The Employers Health Coalition of Tampa. Employment Law Analyst Brett Gorovsky, JD for CCH, a business law consulting company states that,

> "Employers need to discourage both the 'hero employees' – and even more so the 'hero boss' – who shows up for work ready to muddle their way through the day…Employees are in tune with the differences between what management says and what it means, and when they see their supervisors coming in sick, they're convinced that's what's expected of them also." (CCH Incorporated, 2008)

A recent study completed for CCH found that 87% of the 317 employers surveyed reported presenteeism as being an issue in their work place. Several self-report instruments have been developed in recent years (Turpin et al, 2004) by organizations attempting to generate more data on the subject of presenteeism. The *Work Productivity and Activity Impairment (WPAI)* questionnaire, the *Worker Productivity Index (WPI),* the *World Health Organization Health and Work Performance Questionnaire (HPQ),* and the *Work Limitations Questionnaire (WLQ)* were all developed to serve similar purposes with varying foci and results. The *Stanford Presenteeism Scale (SPS)* was developed to cover the variance of the other instruments (Koopman et al, 2002) and has been subsequently validated as a reliable tool for measuring health-related productivity in a wide range of work settings (Turpin et al, 2004). The common feature of all these surveys is that they are dependant on individual recall of events over a period of time.

Aronsson and Gustafsson (2005) ventured into the causes of presenteeism as it pertained to various worker groups with regard to workplace culture and work ethics. They found that service oriented occupations had higher tendency for presenteeism, especially when there may be no one to take their place in the case of an absence.

Fatigue has been recognized to have a detrimental effect on worker productivity and effectiveness. The fire service has not given a great deal of attention to the issue of fatigue on firefighters as a profession, but organizations and individuals are attempting to draw more attention to the subject. Fatigue is recognized by the medical and mental health professions; labor organizations; federal and state regulatory bodies; and employers to have significant negative effects on workers, but the problem has not been truly addressed to any great extent. Pond (2003), Mitrano (2005), and Lorber (2006) in their individual Applied Research Projects (ARP) had determined that there were no state, or federal regulations that restrict the number of hours worked, as they argued for the need to limit the consecutive hours that firefighters could work in their respective departments, and this author has found nothing different to that end. Fire departments, including TFD, have in fact capped the number of consecutive hours one can work in an effort to reduce the probability of workers becoming fatigued while on duty, none have been found that take steps to eliminate workers from arriving for duty already fatigued. Working while sick or injured is also a subject that is given little formal attention in the fire service arena, although there are other, marginally related issues that could have a bearing. Work has been done in an effort to reduce the amount of sick time used by employees, both to eliminate manpower shortages and related scheduling issues, and the use of overtime to cover the shifts of those calling-off. It was recommended by Lynn (2005) that incentives be created to persuade employees not use “unscheduled sick-time” in the Washington Township (Dublin,

Ohio) Fire Department. Although Lynn states that employees are encouraged to use sick time to recover from injury or illness, the end result of encouraging people not to use sick-time was to reduce the use of overtime pay for shift coverage, and staffing and scheduling disruptions.

In *Physiological Stress Associated with Structural Firefighting Observed in Professional Firefighters* (Brown & Stickford, 2009), extensive real time data collection was undertaken while selected Indianapolis (IN) firefighters operated at fire calls, while training, and during other normal activities during a fifty-tour time span. Although baseline fitness screenings were conducted at the beginning of the study that was intended to discover the cardiac impacts of firefighter work conditions, the participants were not required to complete a health screening at the start of each tour.

Concerning tracking of the potential effect of presenteeism in fire service casualties, the *National Fire Incident Reporting System (NFIRS)*, in Section 5, Fire Service Casualty Report (US Fire Admin, 2009), two questions appear to apply to the issue of worker-readiness. The first (F), asks the number of responses the firefighter participated in the preceding twenty-four hour time period. This certainly helps to mount an argument regarding fatigue. The second question (G_2) asks what the firefighter's physical condition was just prior to the injury, with response options of; *other, rested, fatigued, ill or injured, and undetermined* (Appendix A). There is no supporting explanation of what characterizes *ill* or *injured*.

Popular internet web-sites that report "close calls" in the fire service and a similar site that reports close calls in the EMS service, ask fire and EMS service members to report incidents where injury or death were narrowly avoided. In the reporting forms of *FirefighterCloseCalls.com* and *EMSCloseCalls.com* no guidance is given on what details to cover in the reports, including the potential impact of sickness, injury, or impairment in these

reported events. Although, *Firefighternearmiss.com*, does offer, "Sleep Patterns" as a possible topic to "keep in mind" (Firefighternearmiss.com, 2008) as you describe the incident and suggest contributing factors (Appendix B).

The U.S. Fire Administration's *Firefighter Autopsy Protocol* (Stull, 2008) directs the investigators to look into medical and work history as it relates to a firefighter fatality. Only section I, subsection B, item 2, labeled *Current Medical Conditions/Medications*, (Appendix C) has the potential to extract information regarding the firefighters work-readiness directly prior to the subsequent death. The accompanying discussion narrative does little to direct the investigators to look at the decedent's work-readiness as a possible contributing factor in the death of the firefighter. The emergency services *Special Operations Teams* procedure manuals do provide examples of assessment instruments that may serve as a starting point for a general use product. The Summit County (Ohio) Special Operations Response Team is divided into three operation branches, Hazardous Material (Haz Mat) Response, Urban Search and Rescue (USAR), and Water Rescue (Dive). Haz Mat and Dive teams both employ pre-suit examinations for personnel operating in their respective suits. While Dive's process is functional (Water Rescue Branch, 2007), it is less detailed; Haz Mat's process (Hazardous Materials Response Team, 2006) is more detailed. The process includes collecting personal medical history for the past two weeks and recent intake of medications, herbal preparations and alcohol, an exam of vital signs, examination of lung sounds, skin condition, and mental status. The process also lists "criteria to deny entry (by exam)" which includes a maximum temperature, maximum respiratory rate, maximum blood pressure, skin exam findings, and lung exam findings. Beyond that, the S.O.G. allows that the determination can be made by, the Safety Officer, Haz Mat Control Officer, or the Medical Advisor.

PROCEDURES

This research project was initiated in April of 2007 with the foundational work of writing the proposal for the Ohio Fire Executive program. Aside from the work done while in attendance at the two, week long, class sessions held at the Fisher Business College on the campus of The Ohio State University, the research was conducted from my home in Streetsboro, Ohio, from my office at the Twinsburg Fire Department in Twinsburg, Ohio, and from my office at the Ravenna Township Fire Department, in Ravenna, Ohio, where I serve on a part time basis as the Assistant Fire Chief. The intent of the research was to better understand the assessment of work-readiness in the Twinsburg Fire Department, and how it compared to how work-readiness assessments were dealt with in other work environments.

A personal occurrence, some simple observations, and curiosity serve as the impetus for this project. The background was assembled to help establish the significance of the issue. The literature review commenced with a review of Twinsburg Fire Department policies and attendance records, and City of Twinsburg policies and payroll information. The review effort continued with an inter-net search to find sources related to work-readiness in the fire service, emergency services, the military, business and industry.

In an effort to see if there were any trends in the way TFD personnel used their sick time, I requested sick time records from the City's payroll clerk. The clerk was able to produce the requested information from an Excel computer file titled "Sick Leave Reconciliation" that is on the City's computer server. The total sick time hours accrued by personnel for each year, from 1996 through 2007 were tallied. Then the total sick time hours were calculated for each of the same years, and total sick time cashed-in for the years 2002 through 2007 for comparison. The

option to be "compensated in cash…for unused sick leave" was added to the bargaining agreement between the fire fighters Union and the City of Twinsburg in 2000 (Local 3630, 2000). The data were analyzed, taking into account several years (2002, 2004, 2005) where employees used large amounts of sick time for major illness and recovery from severe non-work injuries (Appendix D).

Surveys served to supply much of the remaining information needed to answer research questions one and two. To elicit the opinions of Twinsburg firefighters and comparison opinions from firefighters in other jurisdictions an inter-net based survey was crafted using Survey Monkey. The survey was introduced to prospective participants via an e-mail with a link to the survey site. The sampling was to include all fire department personnel that could be expect to respond to an incident and provide emergency assistance. This same survey link will be forwarded to all fire departments in Summit County, as well as in Solon, Aurora, Streetsboro and Kent, which is representative of the Twinsburg region. The departments were reached via the respective chiefs, who were asked to forward it to their employees if they are willing to have them participate in the survey. The staff positions in all the departments total approximately 1500 individuals, understanding that many firefighters serve on multiple departments, including the 57 from Twinsburg.

This survey, entitled Work Readiness – Firefighters (Appendix: E), includes questions to discover each individual's experiences with sickness, injury, or impairment while on duty. It also includes questions intended to help reveal the attitudes held by the participants regarding work-readiness assessments, as well as some demographic information. The survey consisted mostly of closed-end questions with selected answer options and questions asking for ranking of issues.

This survey was emailed to Ohio Fire Executive program enrollees of Class 8 for review prior to distribution.

A second survey, entitled Work Readiness – Administrators (Appendix: F), created in a like fashion as the first, was sent to the chiefs of the fire departments that were included for the initial survey, which will provide the potential for 31 participants. This survey included closed-end, and ranking questions to establish how these chiefs administrate the issues of work-readiness and see if their opinions about work-readiness differ from the firefighters.

Interviews were utilized to mine additional material to answer research question 2. Interviews were conducted in person and over the phone with Twinsburg's Human Resources Director, administrators from local businesses and industries, as well as, their military counterparts, from area installations. Interviews were also conducted with officers from the Twinsburg Police Department, the Summit County Sheriff's Office, and a local Post of the Ohio State Highway Patrol to see if law enforcement agencies were administrating this issue any differently than the fire service.

Limitations of the Study

While searching for information on this topic, very little information could be found regarding active screening of personnel for sickness, injury, or impairment. Most of the pertinent data was based on after-the-fact recollection of events and occurrences, which, limits the validity of the data to the individuals recall accuracy. As with any survey where historical events are being characterized without the aid of documentation, the subjective nature of the responses will have bearing on the result. So to will be the tendency for some individuals participating in the surveys to want to rate themselves favorably, others unfavorably, and demonize the organization they are in.

Additionally, this project represents this researcher's first foray into applied research; he is neither, a professional surveyor or a trained statistician. Incongruity in the wording of some of the survey questions did not account for the inclusion of an EMS only service and their differing personnel ranks, which is believed to account for many of the unanswered questions in the Firefighter Survey. The phrasing of some questions also did not consider that sick time may not be available to part time and volunteer personnel, and cash-out options may not be available for all people that accrue sick time. Furthermore, my mode of soliciting participation in the two inter-net based surveys greatly reduced the number of people surveyed, due to an apparent lack of enthusiasm for the subject within the administrative ranks of the area fire departments.

There are a myriad of facets to the issue of employee attendance, though policy and financial impacts may be touched on lightly in the *Discussion*, their dynamics will not be thoroughly distilled.

RESULTS

The response to my surveys, though very telling, was significantly lower than was expected. The Firefighter survey had the potential of reaching almost 1600 fire department positions, but was only forwarded by willing administrators to 642 positions, of which, only 172 individuals, or 27% of recipients completed the survey. For the administrators' survey, 31 departments were contacted and 11, or 35% of the represented departments had administrators complete the survey (Appendix: G, Survey Participation).

The firefighter survey revealed that the circumstances in Twinsburg were very similar to those in other departments as both groupings remained within relatively close proportions to

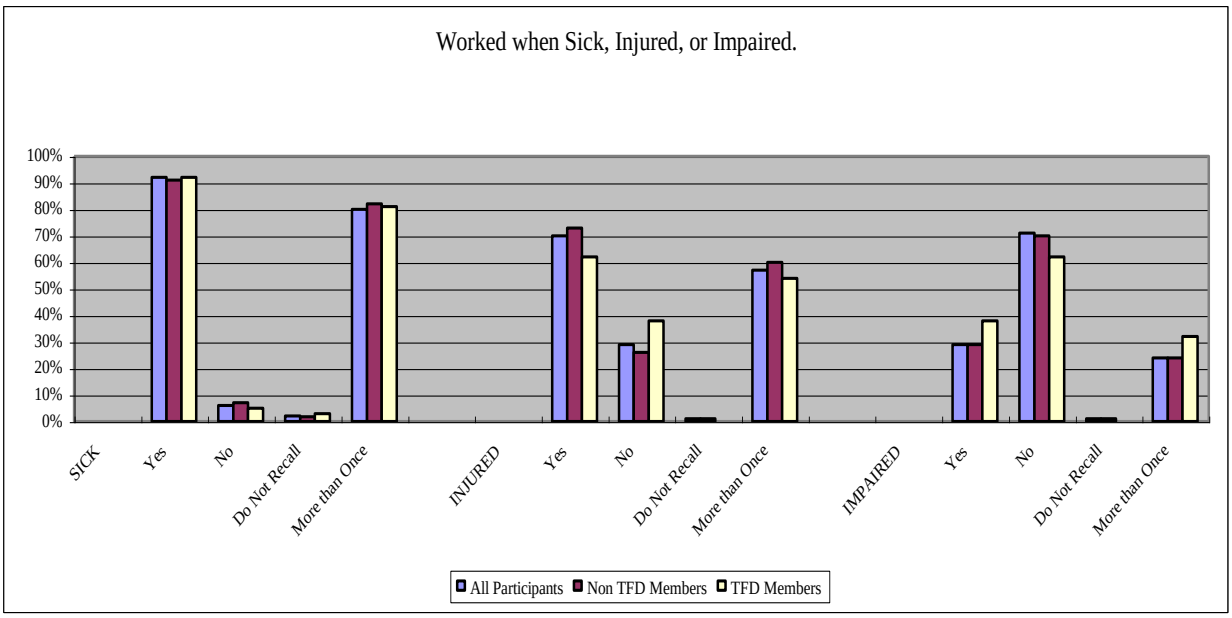


Figure 1

firefighters, 92%, 70%, and 29% surveyed say they have been present or remained at work while sick, injured, or impaired, respectively, and significant numbers indicate that they have had multiple occurrences (Figure 1). The survey responses also indicate that we have personnel that have been at work when they have been sick, injured, or impaired to the extent that it would have affected their ability to do simple to average tasks, and to a greater extent it would have affected their ability to do complex or strenuous tasks. 44% of respondents indicate that they have worked with illness that would have affected their ability to do strenuous tasks, 49% state injury would have prevented them from completing those tasks, and 13% would have been restricted by impairment (Figure 2). Interestingly, when survey questions transitioned to evaluating co-works conditions while at work and their ability to complete tasks, the numbers were somewhat harsher. 89% indicated that they have been at work when others were present in a sick, injured, or impaired state, and 91% of those answering the question indicate that it has happened on more than one occasion, or more frequently. Those statistics are in-line with the self-assessments,

where the difference begins to be more noticeable emerges with the questions regarding other people's ability to complete tasks when they were sick, injured, or impaired. 52% of respondents

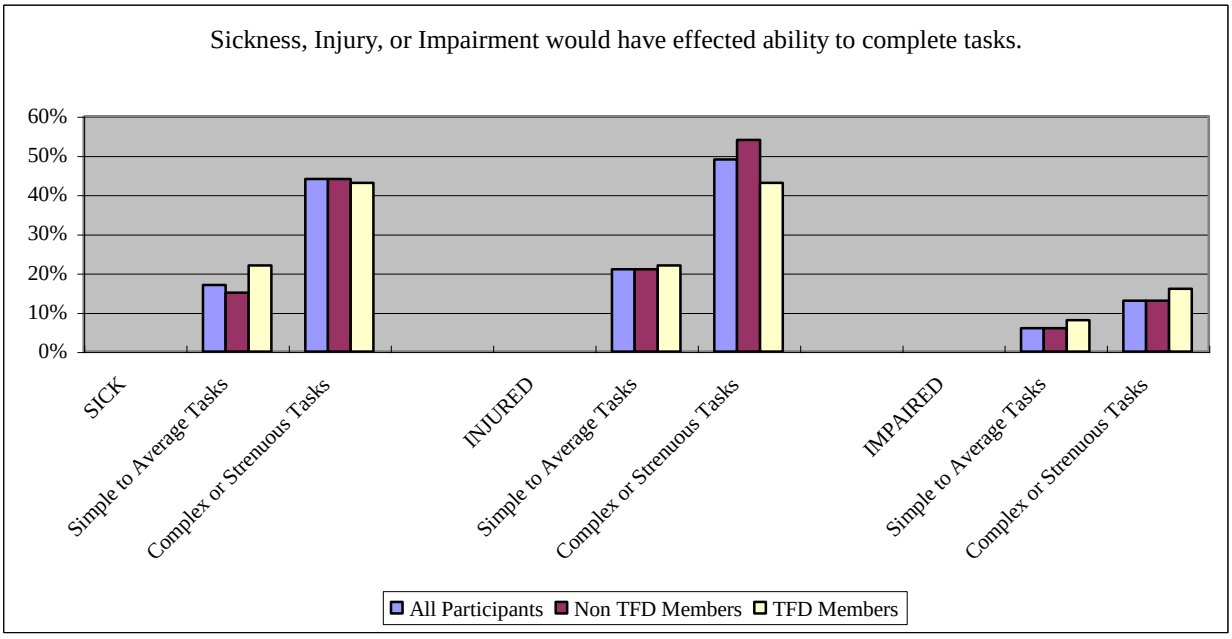


Figure 2

indicate that other people's deficiencies would have affected their ability to do simple to average tasks, with 7% indicating that it has happened several times. This is significantly higher than the worst-case scenario offered by those who assessed themselves as being less able to do simple to average tasks while injured only about 21% of the time. The difference regarding completion of simple tasks was less severe, but 66% feel that they have been on duty with others whose sickness, injury, or impairment would have impacted their ability to complete complex or strenuous tasks, again with 8% indicating it has happened several times.

The question with the most shocking responses was asked to see what level of effort needed to be evident for an employee to remain at work. Surprisingly 3% of respondents

indicated that only a 50% or better effort was needed for work, and 1% stated 60% or better was sufficient. The response from administrators was only slightly better but still left room for

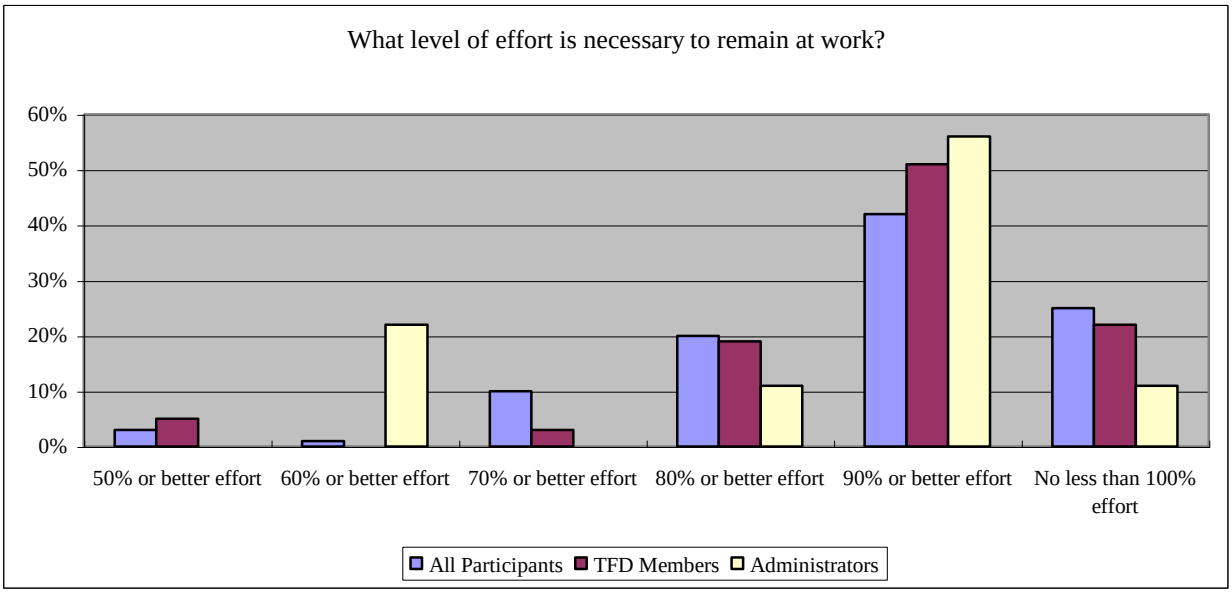


Figure 3

wonder (Figure 3). 22% of administrators indicate that only a 60% or better effort is needed for workers, which may seem like an improvement from the Firefighters survey, but actually the "50% or better effort" option was not offered to the administrators in their survey.

Opinions also varied on the question of who should determine work-readiness, and how that determination should be reached. Firefighters showed strongly that an individual should determine, for himself or herself, whether they are ready for work, while administrators indicated that they would prefer a management or administrative figure make the judgment (Figure 4). It must be understood when analyzing the results of question eighteen on the Firefighter Survey, and question nine on the Administrators Survey, that who directly oversees personnel on a day-to-day operational basis will vary depending on the size of the department and how decentralized it's operation is. In a larger department a company officer in a outlying station may be in the

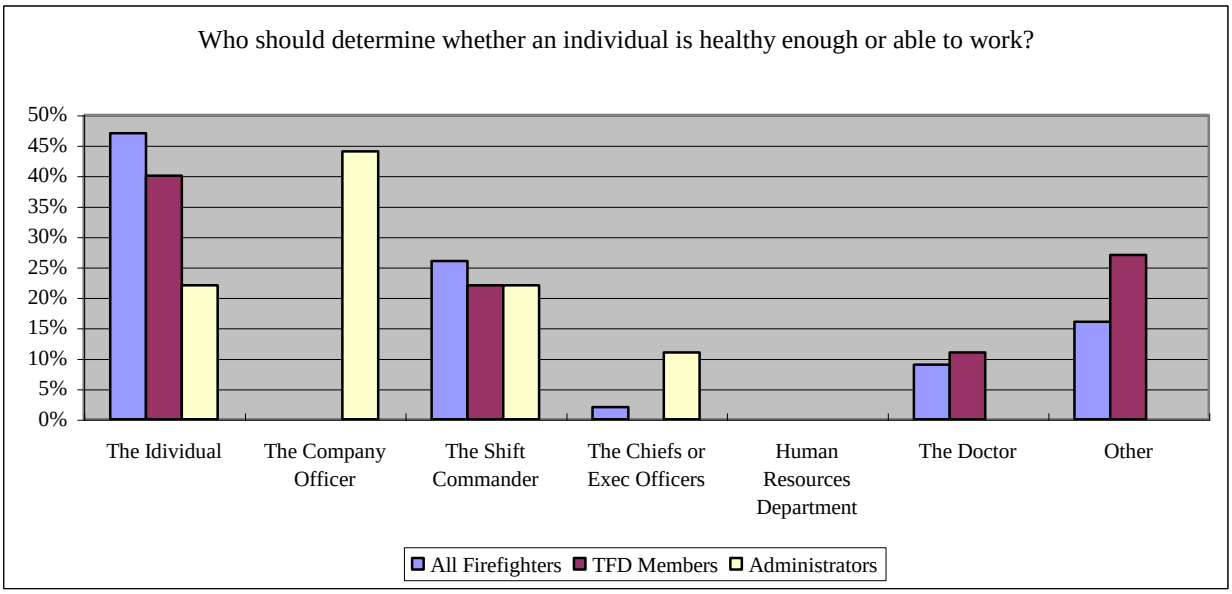


Figure 4

position to appropriately evaluate an employee's work-readiness, where in a smaller department with a single station and lesser manning, or volunteer response, the Chief may directly oversee the on-duty crew. That being understood, it should also be explained that in the *Other* category respondents offered combinations of *individual, shift commander,* and *doctor*, as suitable assessors of work-readiness. As for what basis to use for determination, on the Firefighter Survey those answering question nineteen were fairly equally divided between *individual's opinion* (21%), *officer's opinion* (24%), *doctor's opinion* (20%), and *a quick and easy to use evaluation established by Labor/Management agreement* (26%). Again, a small portion (9%) offered combinations of the previously mentioned options, as suitable bases. On the Administrators Survey, in response to question twelve, 89% agreed that an assessment tool or checklist developed through labor/management agreement would be a favored method for work-readiness assessment if available.

As for the factors impacting the individual's decision to go to work or stay home, two

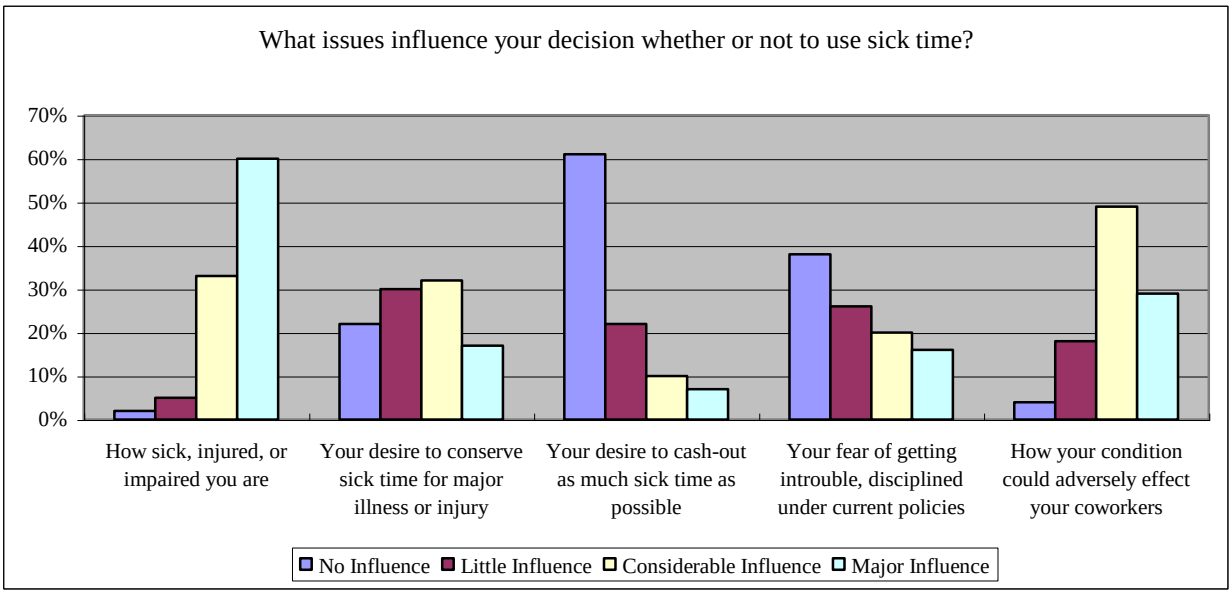


Figure 5

questions on the Firefighter Survey reveal additional information (Figure 5). Although question twenty did not sufficiently allow for the lack of availability of sick time for some part time and volunteer personnel and sick time cash-out for those with sick time, the responses logically indicated their effective influence. Reasonably, how sick, injured, or impaired the individual was held the most influence (93%), rating 60% as a major influence and 33% as a considerable influence. That still leaves 7% who indicate that how sick they are has little or no influence on their decisions. Desire to cash-out sick time had the least influence, but there were still 10% that felt it carried considerable influence and 7% that felt it was a major influence.

When asked to rank from one to five, five factors that apply to being sick, injured, or impaired while on duty, another set of statistics were compiled. *One* was used to indicate the most important factor and *five* was used to indicate the least important factor. Not all that answered the question ranked each of the factors to be considered, but 71% of those addressing the factor indicate that safety for fire department crews was most important in regards to the

Rank factors as they apply to being sick, injured, or impaired while on duty

Ranking	1	2	3	4	5
It can be unsafe for fire department crews.	75% 70%	11% 22%	14% 3%	0% 4%	0% 1%
It is o.k. because we owe it to our "brother/sister firefighter.	3% 4%	3% 10%	16% 32%	47% 17%	31% 37%
It could adversely effect our "customers" or leave a bad impression.	3% 3%	31% 23%	35% 37%	21% 26%	10% 11%
It can be unsafe for the sick, injured, or impaired individual.	24% 28%	41% 36%	21% 19%	9% 14%	6% 3%
Sick leave policies.	8% 8%	17% 11%	17% 16%	17% 29%	42% 37%

■ TFD Members ■ All others

1 = Most Important 5 = Least Important

Figure 6

presence of sick, injured, or impaired employees at work. Sick Leave policies were ranked least important of the factors. There was minimal variance when TFD personnel's responses were compared to all others that participated, with regard to Factors A, C, and D, (Figure 6) which should be considered the more important factors. The ranking of Factors B and E were such, that even though Factors B and E should be characterized as less important factors, generally speaking, their bearing on the issue is of sufficient importance to warrant further discussion later. Continuing on the subject of policy, respondents were asked to characterize their department's policies on sick time use and attendance by selecting from five options. Of those answering from other departments, 43% selected *fair, reasonable, and evenly enforced,* by far the largest group, while 11% indicated that policies *do not exist*. Comparatively, TFD members, for the most part, were divided between *fair, reasonable, and evenly enforced* (41%) and *tolerable but need some*

improvement (35%), with a noticeable share (16%) selecting *unfair and unreasonable*, as their answer.

Fire department administrators were surveyed on some similar issues, but the queries varied slightly. Unlike the Firefighter's Survey where personal identification was not requested, hoping that the anonymity would encourage participation and frank responses, the administrators were asked to provide name and contact information, although it was not mandatory. Seven individuals responding to the survey, from other than TFD, offered their identification. As a result, on two occasions respondents were contacted for clarification on their answers, as there appeared to be an anomaly. In both cases, the response to one question was altered prior to final tabulation. TFD's Chief Racine also had a response that seemed out of sorts with the remainder of his answers, when questioned about that, he reasserted that it was the answer he thought was most appropriate.

Although the sample size covered by the survey would appear to be sufficient at 33%, because there were only eleven replies, and even with the attempts to clarify the responses, much of the data is difficult to characterize. There are three main points that are quite clear. First, most of the administrators are aware that employees are present for duty with varying levels of illness, injury, and impairment they would impact their ability to do simple to average tasks, and strenuous to complex task. Secondly, all but one of the administrators answered that they, or the supervisors under them, are left to personal opinions to make initial assessments of work-readiness in their departments. The remaining administrator left it to a doctor's findings. And finally, all but one of them would prefer that an easy to use assessment instrument or checklist developed by a labor/management agreement be available to assist in making the work-readiness assessments in their departments. This time the remaining administrator was unsure. Five of the

nine administrators answering the question thought that they properly guarded against presenteeism, although Chief Racine was unsure (Table 1).

Table 1

Feels department adequately guards against the presence of sick, injured, or impaired employees on duty.

	Yes	No	Unsure	Skipped Question
Other Administrators	5	2	1	2
Chief Racine, TFD			1	

When asked if they felt that their employees fully appreciate and actively think about how their presence at work while ill, injured, or impaired could be a contributing factor to the poor outcome of a call, those answering the question from other departments were evenly split, four yes, four no. Two did not answer the question, and again, Chief Racine was undecided on the issue.

Table 2

Feels employees fully appreciate and actively think about how their presenteeism could be a contributing factor to the poor outcome of a call.

	Yes	No	Unsure	Skipped Question
Other Administrators	4	4	0	2
Chief Racine, TFD			1	

DISCUSSION

As the discussion commences, it becomes evident by analysis of the results that there are wide ranging perceptions with regard to the assessment of work-readiness, throughout the fire service in the Twinsburg area, and even in the Twinsburg Fire Department.

Starting with research question 1, how do Twinsburg Fire Department, administrators, managers, and employees characterize work-readiness? TFD, it appears, has had employees on duty that would have had decreased ability to do simple to average task, as well as strenuous or complex tasks. It has been witnessed by some and confessed to by others. There does appear to be a trend that the higher the rank, and/or, the more years served, the higher the likelihood that the employee has themselves been ill, injured, or impaired, at work in a condition that would have impacted their ability to perform, or have witnessed the same in others. In looking at the TFD only results of the firefighter survey, 43% said they have been on duty with an injury that would have limited their ability to do strenuous or complicated tasks, representing the worst result of self-assessment. In comparison, 57% feel that others have been on duty with injury, illness, or impairment that would have limited their ability to complete strenuous or complex tasks. Assuming that the TFD work population is similarly subject to common, aches, pains, illnesses, reactions to medication or any other physiological manifestation of less-than-perfect health, on the surface it would appear that we assess other's limitations more critically than we assess our own.

When considering whether to use sick time or report for duty, it seems that TFD members have appropriate priorities, in general. *How sick, injured, or impaired you are* received a rating average of 3.38 indicating it had the highest influence (Question 20) on the decision, followed by *how your condition could adversely effect your coworkers* at 3.00. On the low end of influence

was *your desire to cash-out…sick time* (1.30) and *desire to conserve sick time* (2.30). Nestled in the middle was the issue of fear of *being disciplined under current policies*, over half of TFD respondents felt this issue was a *considerable* (27%) or *major* (24%) influence in their decisions, as it had a rating average of 2.46. When asked to rank five factors that *applied to being sick, injured, or impaired while on duty* (Question 21), again TFD survey participants gave what could be considered appropriate responses. With one being most important and five being least important, the idea of a "brother or sister" firefighter being entitled to some level of "cover" by crew members while being somehow less than fit for duty had the lowest ranking, with an average rating of 4.00. Factors with strong rankings included *it can be unsafe for fire department crews* (1.39), *it can be unsafe for the sick, injured, or impaired individual* (2.32), and *it could adversely effect our "customers" or leave a bad impression* (3.03) ranked third. Ranked fourth with an average rating of 3.67 was the factor of *sick leave policies*. Fifteen of thirty-seven TFD respondents ranked this item three or higher. The results of questions 20 and 21, and comments heard while this topic and this survey were "news" at TFD would seem to suggest that current policy is a significant concern that applies to this topic. When asked to pick from a group of statements that which best characterizes the department's sick leave and attendance policies, only 35% indicated that they thought the policies were *fair, reasonable and evenly enforced*. That leaves 65% that believes they are *unfair and unreasonable, need some improvement,* or *are not evenly enforced*. Five individuals were willing to leave additional comments, including one that was 159 words long. The causal factors for this dislike for TFD policy was not a focus for this research project but as Herzberg (1971) explains, improved policy may not necessarily make anyone happy, but it can reduce unhappiness, so reviewing these issues could be of value to TFD.

Due to the lack of members, in sufficient numbers, at the Lieutenant and Captain ranks at the TFD, it is not clearly discernable whether differences exist in how work-readiness is assessed between the employees and their managers. Due to the range of answers given regarding the *level of ability…used to determine whether an employee should be able to work*, with two TFD members answering only *50% or better*, and the discrepancy between how we evaluate ourselves versus how we evaluate others, the idea of having an assessment instrument or evaluation checklist begins to gain merit. The TFD Chief and Assistant Chief also seem to favor that possibility. As much as TFD members would favor individual self-assessment, 41% compared to a combination of other options, it would appear that it might be too subjective a method to be reliable, especially when there is a lack of common core values.

Comparing the TFD to other places of employment would serve to answer research question 2, which asks how does Twinsburg Fire Department's idea of work-readiness compare to that of other organizations? As already demonstrated in the *Results* section previously, there is largely no significant difference between that was discovered at TFD and in the rest of the participating fire departments in the survey. There was no attempt at this point to divide out differences between part time and full time groups, between all career and combination departments, genders, and between groups based on years of service, which could all be interesting studies. Referring again to the OFE paper of Lynn (2005), he was contacted via telephone for an interview on June 19, 2009. He was pleased to be able to tell me that his department had been able to create some incentives to reduce the unscheduled use of sick time following the completion of his research. He stated that significant reductions in sick time use were realized initially, but have since started to rise slightly, though they still remain markedly lower than before the incentives were offered. But when asked about the occurrences of

presenteeism prior to and since the incentives implementation, he stated that in his opinion, presenteeism had increased. He went on to qualify his statement by adding that he did not think the levels of deficiency displayed by those he witnessed constituted a great increase of risk. Anecdotally, Lynn was the first and only person spoken to, for this research that offered the term "presenteeism" in conversation with out it first being suggested.

Dr. Joel Stager, Professor of Kinesiology at Indiana University – Bloomington, was part of the research team for the previously cited study on physiological stress conducted in conjunction with the Indianapolis Fire Department (Brown & Stickford, 2009). Dr. Stager (interviewed via telephone June 15, 2009) was asked if the firefighters involved in the study were assessed at the start of each shift, to which he indicated they were not. He was then asked if the presence of illness, injury, or impairment in any of the study subjects, during the course of the assessment, would have had an impact on the life sign readings and associated findings. Dr. Stager was confident that if tracked, those issues would very likely show correlation to variations in the study's findings, he added that the amount of impact, obviously, would be dependent on the subjects baseline health and physical conditioning.

Contact was made with three area law enforcement agencies to find out how work-readiness assessments were made in those emergency services providers. Chief Christopher Noga (interviewed in my office on June 18, 2009) of the Twinsburg Police Department (TPD) stated that, "it happens without a doubt." He went on to express his concern about how to assess work-readiness within his agency and noted that it is not handled as uniformly as he would like, realizing that his supervisors do have differing ways of handling the variety of situations. Chief Deputy Garry Moneypenny and Administrative Lieutenant Brad Whitfield (interviewed via telephone on July 1, 2009) of the Summit County Sheriff's Office (SCSO) concurred, that the

presence of sick, injured, or impaired Deputies on duty would be a significant performance and safety concern, but noted that they were not aware of it happening with any frequency in their organization. Finally, Sergeant Brian Holt (interviewed via telephone on July 1, 2009), day shift supervisor for the Ravenna Post of the Ohio Highway Patrol (OHP) was asked about the same issues, he also agreed that the issue of presenteeism was important. Sergeant Holt's primary concern in this regard concerned his third shift officers that had to appear for court during normal business hours, during the day. This interfered greatly with the Troopers ability to get their normal sleep. Chief Moneypenny agreed that sleep disruption was currently the SCSO's greatest concern in the realm of work-readiness. Both the OHP and SCSO have means to alter shifts to accommodate these disruptions. Within TFD, SCSO, and OHP it is incumbent upon the supervisor to assess the condition of their officers to insure they are truly ready for work. In all three cases the supervising officer is left to his opinion to determine his officers' condition, in all three cases it was agreed that it was not an ideal method. Both Chief Moneypenny and Sergeant Holt were queried about the possibility of their officers being able to go through the course of a shift without being seen by a supervisor since many of their Troopers and Deputies drive their cruisers home. In both cases they claimed that as much as the possibility existed, it would be uncommon. Their officers normally report to their respective offices at the beginning of each shift where they would make contact with a supervisor. On rare occasions officers may be called to respond to an incident while they are enroute to the office to begin their shift, and remain busy throughout the course of a day, but it would be unusual for them to avoid contact with a supervising officer for an entire shift.

The military branches were also used for comparison to the fire service. The representatives of the main three branches that were spoken to indicated that there were

differences in how work-readiness issues were handled, depending on the troop's status. Those levels of status could include, ready reserve, active reserve, active duty, in garrison, and in theater, each level presents it's own set of issues. The Army, the Air Force, and the Navy are all held to the same minimum standard for enlistment, appointment, or induction (Powers, 2009), each branch is then permitted to establish higher standards as needs for different positions dictate. The acronym PULHES is used as a guideline for these standards. *P* is for "physical capacity or stamina," *U* is for "upper extremities," *L* is for "lower extremities," *H* is for "hearing and ears," *E* is for "eyes," and *S* is for "psychiatric." Each area is scored *one* through *four,* with one being good and four being bad, and according to Major Chester, of the Army's 256th Combat Support Hospital (interviewed on February 20, 2009 in his office), in Twinsburg, Ohio, everyone wants "picket fences," or all ones. All ones would represent the highest score one could achieve on the Military Entrance Processing Station (MEPS) evaluation. Deviation from all ones would indicate that their profile might necessitate special placement or activity limitations, or ultimately rejection if so indicated. This serves as a functional assessment for entry-level employees and for annual or subsequent follow-ups, but Captain Todd Gore of the Army's 2nd Psychological Operations Group (interviewed on February 20, 2009 in his office), in Twinsburg, Ohio, day-to-day work-readiness assessments are still left to the unit leaders judgment. In the case where a unit member's condition is called into question, their supervisor can direct them to "sick call" if on, or close to a base or military installation, or to their doctor of choice if military resources are not convenient.

Technical Sergeant Hector Mendez (interviewed via telephone May, 2009), with the Air Force Reserve, 910th Air Wing Medical Squadron, in Youngstown, Ohio indicated the Air Force handles work-readiness in a similar fashion, although he did indicate that pilots did receive an

evaluation from a second party prior to flying a mission, when time permits. Although he offered to seek a copy of the form and provide it for inclusion in this research, this had not yet been accomplished by the time this paper was submitted. Mendez indicated that all military bases have some individual discretion on how work-readiness were to be handled.

Petty Officer Tyler Morgan, a Diver, and Explosive Ordinance Disposal (EOD) Technician 1st Class, currently detailed as an instructor at the Eglin Air Force Base, in Niceville, Florida, provided insight into the Navy's handling of work-readiness. Morgan (interviewed July 4, 2009 at Christmas Run Park, Wooster, Ohio) is also the author's younger brother and a career member of the Navy. Morgan concurred with the general statements of his Air Force and Army counterparts. Unit leaders are responsible for making the basic assessments of work readiness based on their opinion of their soldier's condition. In all three cases, medical personnel are left to make official determinations based on PULHES guidelines, those medical personnel can issue Temporary Profiles good for up to ninety days. Beyond that a Medical Board can issue profiles, up to and including, a Permanent Profile, which must be re-assessed every five years if the individual remains on active or reserve status.

Even with these guidelines, the military has come under scrutiny in recent years for deploying troops that are unfit. According to a USA Today article entitled "43,000 troops deployed are unfit"(Zoroya, 2008), large numbers of troops that were "listed as medically unfit for combat in weeks before their scheduled deployment…were sent anyway" according to Pentagon records. The severity of their health issues was not listed in the Pentagon report, nor did it state whether the health issues were cleared up prior to actual employment. The data was taken from health assessment forms filled out by the individuals at the various military installations. Another USA Today article (Zoroya, 2009) revealed that a growing number of

soldiers could not be deployed, with the greatest amount being in the previous year. The article goes on to say "During the past two to three years, the number of soldiers held back from combat because of physical or emotional injuries has risen by 9% to 12% …The most common health complaints are back and neck pains, in many cases from long periods of carrying heavy body armor, ammunition, and weapons." These articles would seem to indicate that the need to accurately assess a soldier's battle-readiness is a growing concern for the military, placing on them added pressure as they attempt to keep their ranks full. Notable at this point is the fact that, in the military, when one is missing from the ranks, generally, key positions can be refilled without incurring additional costs from overtime or part-time fill-in, do to the organizations' massive size. The larger the organization, including the fire department, the greater the ability to adjust for an absence, assuming the relationship of personnel available to service demand, is adequately established as an operational norm in the first place. Department administrations are normally in position of keeping personnel costs to the minimum to stay within allotted budgets, this often is the unintended opponent of sufficient manning and "safety."

Additionally, while interviewing Captain Gore, one of the individuals sharing his office was asked for comment by the captain. This individual was affiliated with an Airborne unit, but his rank and name was not captured. He was asked, "What do you think about this issue of work-readiness?" To which he responded, "Unless his leg is broke, I don't want to hear any whining." While this macho attitude, and sense of determination may seem honorable, in the military, law enforcement, and the fire service, it would also seem to leave some uncertainty about the effectiveness of ones comrades in a high level action of any kind.

The private sector is not immune to the effects of presenteeism. Again, as indicated in the *Literature Review*, some Human Resources professionals are beginning to find evidence that

presenteeism may cost companies more than absenteeism. As much as "profit margin" is generally not a concern in the local fire department, like it certainly is in business, getting good value from an employee is certainly and understandable concept for fire service administrations. The safety services do have an interest in generating a good "product" or service, and a primary commodity involved is safety.

Management personnel from three sizable companies in Twinsburg were also contacted for their input on this subject. Robin Briscoe, the Human Resources Manager for the Chrysler Corporation's Twinsburg Stamping Plant was interviewed following a tabletop emergency response exercise in their facility, on April 16, 2009. She stated that their greatest concern was simply getting people to show up for work, that their employees freely took advantage of sick time. When the characteristics of presenteeism were explained to her, she indicated that any concerns were to be addressed by the individuals' crew leader, in conjunction with a supervisor, and quite often with a union steward. If sufficient cause were found for concern the individual would be sent to the Infirmary on the premises that is staffed with a doctor and nursing staff. From there, the worker would either be released back to work, referred to their personal doctor, or as frequently is the case, TFD would be called to emergently transport the individual to a local hospital. When asked if there were concerns of employees arriving at work with minor injuries and then claiming that it was a work place injury, for the purpose of "going out" on workers' compensation, Briscoe indicated that she had not thought of that possibility. Another issue present in the Chrysler operation, not present in the other two businesses, is a labor union. An issue very familiar to many fire department administrators is the added difficulty of navigating through personnel issues without running up against articles in the contract, or labor agreement.

Tom Vodicka, the Facilities Manager for Edgepark Medical Supplies, a large national medical supply company in Twinsburg, was interviewed by phone on June 12, 2009. He indicated that in their facilities' work-readiness assessments are left to the managers' discretion. Although the company, with over three hundred employees at the Twinsburg site, and additional numbers at other locations nation-wide, has return to work sign-off sheets for those employees that exhibit signs of injury, there are no clearly set guidelines. In this case, the sign-offs are to serve as protection against Bureau of Workers' Compensation (BWC) claims, not necessarily to judge the ability of the worker or his effectiveness. Managers can resort to sending the employee in question to get a doctor's release to work, but there is a lack of uniform criteria.

The Rockwell Automation Corporation requires that a form entitled "Initial Report of Physical Complaint" be filled out when an employee displays deficits as a result of injury. According to Tom Neff their Environmental Health and Safety Manager and Twila Maxwell a Technical Trainer (both interviewed via telephone on June 15,2009) with Rockwell Automation in Twinsburg, this form's primary function is to serve as protection against a BWC claim. This company, employing almost 540 people, also relies on first line supervisors to guard against those being too sick, injured, or impaired affecting the work place. Rockwell also promotes a healthy work environment by continuing the employees normal pay rate during "Modified Duty Program" participation, if their doctor completes a "Performance Capability" form. Otherwise, Neff and Maxwell indicate that they believe the company's programs are well received and limits their exposure to presenteeism. That being said, Chrysler, Edgepark, and Rockwell all seemed to be slightly more lax on the status of employees with colds and minor flu symptoms and the potential for spreading illness, than they were for circumstances of injury.

Finally, the search for a practical, easy to use, assessment instrument or checklist turned up very little. The pre-suit exams employed by many special operations teams would appear to the closest to accomplishing the task of assessing work readiness. The Summit County Haz Mat Team S.O.G., Chapter 9, (Appendix H) offers an assessment instrument that generally should only take a couple minutes to complete, and establishes limits for approval. Making modifications to this process for the purposes of regular use for work-readiness assessment on a day-to-day basis would seem to be an attainable goal. Again, coming to agreement with labor organizations on its' content and the ramifications of its' use may be the most trying aspect of establishing such a process.

Although not to any extreme, policy does seem have bearing on this issue. Whether misunderstood, misapplied, or inequitable, the individual's perception of the policies' impact on them, do serve as motivators in this area. TFD does have one policy for full-time personnel (City of Twinsburg, 1999), and another for part-time (Twinsburg Fire Department, 1999), which may create confusion. Use of sick time can also cause one to be entered into the disciplinary process based on the amount used, with out indications of abuse patterns.

TFD and Twinsburg policy also indicates that single absence occurrences covering multiple shifts in a row, or separate occurrences within a period of time can require that the employee obtain a doctor's excuse, again, even if a pattern of abuse is not evident or suspected. A family passing around the common cold or mild flu symptoms, children passing around lice, or just over-doing-it at home on a do-it-yourself project, all cases where a doctor's visit is not necessarily warranted, could trigger the need for a doctor's excuse. Mike Troyan is an insurance agent with TMC Insurance Group, which handles Twinsburg's medical insurance package. He reported that the average office visit with a family practice physician, besides costing the

individual the cost of their co-payment, cost Twinsburg, on average, approximately $158.00 (personal e-mail correspondence, April 15,2009). This provides an example of how policy can conflict with practicality and result in added cost. This statement is not to establish blame, or fault the city, but is just a statement of fact. This arrangement is simply the manifestation of an atmosphere of distrust and/or protectionism that has developed in municipal management over time.

RECOMMENDATIONS

Presently, this researcher offers the following recommendations in an effort to promote an effective, healthy, and safe work force for the Twinsburg Fire Department. It is recommended that a process be undertaken to develop, and attempt to institutionalize, a set of core values to serve as a foundation upon which all policy and practice related to safety can be constructed. Secondly, a process should be developed to track the results of allowing those, whose work-readiness is deemed questionable, to remain on duty. Such data could be used to refine or modify any subsequently developed policy. Finally, the TFD should commence a process to develop a work-readiness assessment instrument and policy that can aid in objectively, and uniformly, determining our employees suitability for duty on a daily basis.

REFERENCES

Aronsson, G., & Gustafsson, K. (2005). Sickness presenteeism: prevalence, attendance-pressure factors, and an outline of a model for research. *Journal of Occupational and Environmental Medicine, 47,* 958-966.

Brown, J. & Stickford, J. (2009). *Physiological stress associated with structural firefighting observed in professional firefighters.* U.S.: Indiana University-Bloomington, School of Health, Physical Education & Recreation, Department of Kinesiology.

City of Twinsburg (1999). Employee's Handbook. Twinsburg, Ohio: City of Twinsburg.

City of Twinsburg (2006). Drug-Free workplace policy. Twinsburg, Ohio: City of Twinsburg.

CCH Incorportated (2008). On the job, but out of it? CCH survey looks at ill effects of sick employees at work. Retrieved September 17, 2008, from http://CCH.com/press/news/2008/20080110h.asp.

Hazardous Materials Response Team (2007). *Standard Operating Guideline.* Summit County Special Operations Response Team, Akron, OH.

Koopman, C., Pelletier, K.R., Murray, J.F., Sharda, C.E., Berger, M.L.,Turpin, R.S., et al. (2002). Stanford Presenteeism Scale: Health status and employee productivity. *Journal of Occupational and Environmental Medicine, 44,* 14-20.

Local 3630, International Association of Firefighters (2000). *Contract between the City of Twinsburg and the Twinsburg Fire Fighters Local 3630, International Association of Fire Fighters.* Twinsburg, OH.

Lorber, J. (2006). Fatigue: An impact on firefighters. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.

Lowrance, W. (1976). Of acceptable risk: Science and the determination of safety. Los Altos, CA: William Kaufmann, Inc.

Lynn, W. (2005). Strategies to reduce absenteeism within the Washington Township Fire Department. (Ohio Fire Executive Research Paper). Columbus, OH: Ohio Fire Chiefs Association.

Mitrano, S. (2005). Should the Rochester Fire Department limit the number of consecutive hours worked in the fire station. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.

National Fire Protection Association [NFPA] (2007). Standard on fire department occupational safety and health program (NFPA 1500). Quincy, MA: NFPA.

National Fire Protection Association [NFPA] (2000). Standard on health-related fitness programs for fire fighters (NFPA 1583). Quincy, MA: NFPA.

Ohio Police & Fire Pension Fund (2007). Employer Manual: for employers of active Ohio police officers and firefighters. Columbus, OH: Ohio Police & Fire Pension Fund.

Pond, A. B. (2003). A preliminary study on the effects of fatigue on firefighters. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.

Powers, R. (2009). Military medical standards for enlistment, appointment, or induction. Retrieved from http://usmilitary.about.com/od/joiningthemilitary/a/intmedstandards.htm?p=1, June 9,2009.

Powers, R. (2009). Military physical profile serial system: The PULHES factors. Retrieved from http://usmilitary.about.com/od/joiningthemilitary/1/blpulse.htm?p=1, June 9,2009.

presenteeism. (n.d.). *Webster's New Millennium™ Dictionary of English, Preview Edition (v 0.9.7)*. Retrieved December 11, 2008, from Dictionary.com website: http://dictionary.reference.com/browse/presenteeism.

Sitter, D. (2005). *Presenteeism: The Hidden Costs of Business*. Retrieved December 11, 2008, from http://ezinearticles.com/?Presenteeism:-The-Hidden-Costs-of-Business&id=40408.

Stull, J.O. (2008). *Firefighter Autopsy Protocol.* United States Fire Administration, Emmitsburg, MD.

Turpin, R.S., Ozminkowski, R.J., Sharda, C.E., Collins, J.J., Berger, M.L., Billotti, G.M., et al. (2004). Reliability and validity of the Stanford Presenteeism Scale. *Journal of Occupational and Environmental Medicine, 46*, 1123-1133.

Twinsburg Fire Department (1998). Standard Operating Procedure: 1.0, General Operations. Twinsburg, Ohio: Twinsburg Fire Department.

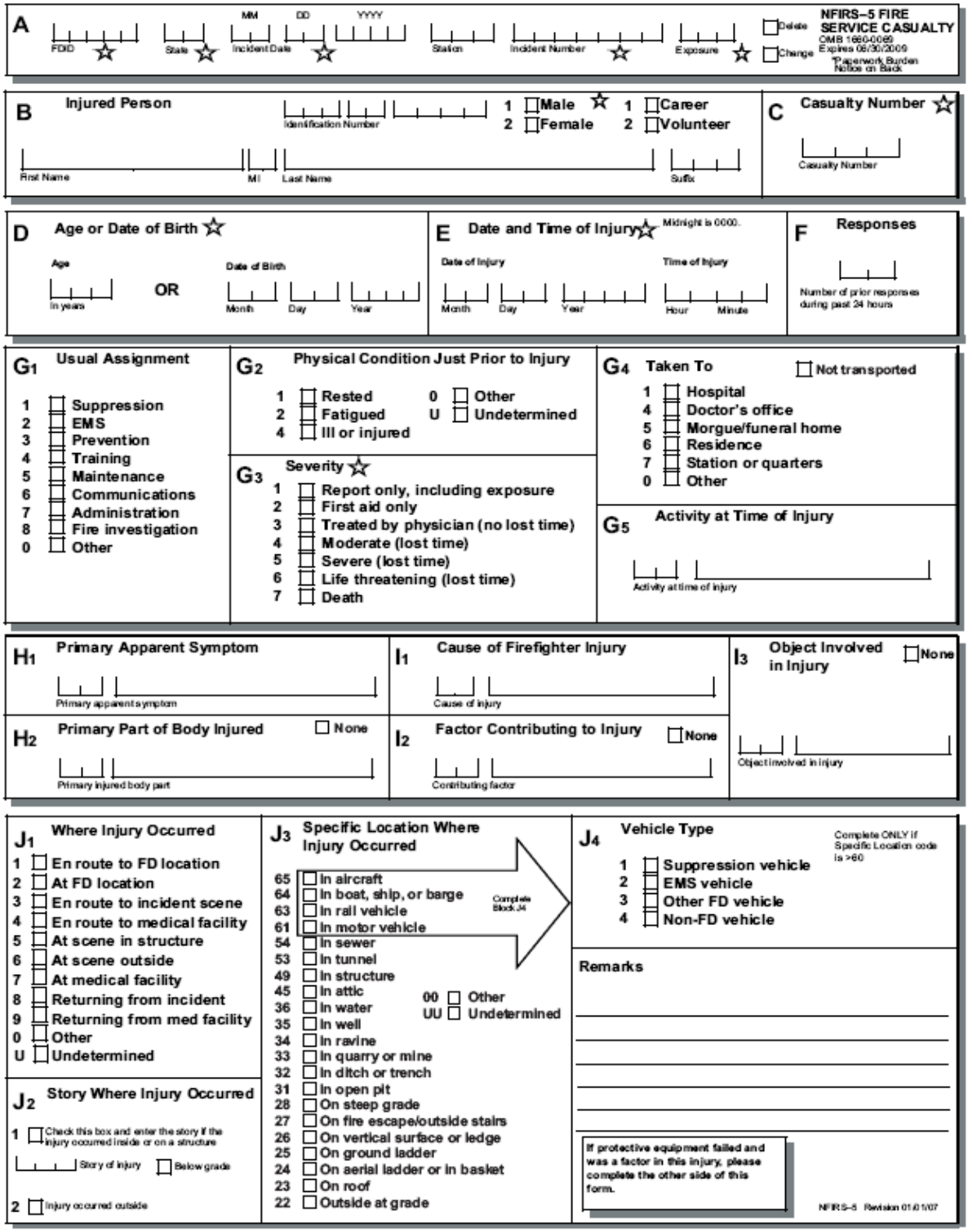
Twinsburg Fire Department (1999). Standard Operating Procedure: 42.0, Attendance Policy: Part Time. Twinsburg, Ohio: Twinsburg Fire Department.

Twinsburg Fire Department (2007). Absences-2: Access database. City of Twinsburg network server: Twinsburg Fire Department.

United States Fire Administration, (2007). *National Fire Incident Reporting system.* Retrieved June, 2009, from http://www.nfirs.fema.gov/documentation/design/NFIRS_Paper_Forms_2009.pdf.

Water Rescue Branch (2007). *Standard Operating Guideline.* Summit County Special Operations Response Team, Akron, OH.

APPENDIX A – NFIRS FIRESERVICE CASUALTY REPORT



APPENDIX B – NATIONAL FIRE FIGHTER NEAR MISS REPORT FORM

NATIONAL FIRE FIGHTER NEAR-MISS REPORTING SYSTEM

Revised Feb. 5, 2008 (Page 1 of 2)

SECTION 1: REPORTER INFORMATION

Department type: (Required)
(Select only one.)

- ☐ Volunteer
- ☐ Paid, Municipal
- ☐ Paid, Federal
- ☐ Combination, Mostly paid
- ☐ Combination, Mostly volunteer
- ☐ Wildland/Forestry
- ☐ Industrial
- ☐ Training Academy
- ☐ Paid-on-Call
- ☐ Rescue/Ambulance Squad
- ☐ Other _____ *(If other, please provide detail.)*

Job or rank: (Required)

- ☐ Assistant Chief
- ☐ Battalion Chief
- ☐ Captain
- ☐ Deputy Chief
- ☐ Driver/Engineer
- ☐ Fire Chief
- ☐ Fire Fighter
- ☐ Lieutenant
- ☐ Sergeant
- ☐ District Chief
- ☐ Training Officer
- ☐ Safety Officer
- ☐ ALS Provider
- ☐ BLS Provider
- ☐ Other _____ *(If other, please provide detail.)*

Department shift:

- ☐ 24 hours on - 24 hours off
- ☐ 24 hours on - 48 hours off
- ☐ 24 hours on - 72 hours off
- ☐ 10 hour days, 14 hour nights (2-2-4)
- ☐ 10 hour days, 14 hour nights (3-3-3)
- ☐ 12 hour days, 12 hour nights
- ☐ 48 hours on - 96 hours off
- ☐ Straight days (8 hour)
- ☐ Straight days (10 hour)
- ☐ Straight days (12 hour)
- ☐ Stand-by (in-station)
- ☐ Duty night (in-station)
- ☐ Respond from home
- ☐ Other _____ *(If other, please provide detail.)*

Age at time of Event

- ☐ 16-24
- ☐ 25-33
- ☐ 34-42
- ☐ 43-51
- ☐ 52-60

Experience at time of Event (in years)

- ☐ 0-3
- ☐ 4-6
- ☐ 7-10
- ☐ 11-13
- ☐ 14-16
- ☐ 17-20
- ☐ 21-23
- ☐ 24-26
- ☐ 27-30
- ☐ 30+

Service Area

- ☐ Urban
- ☐ Suburban
- ☐ Rural

State

FEMA Region

SECTION 2: EVENT INFORMATION

Event type: (Required)
(Select only one.)

- ☐ Fire emergency event: structure fire, vehicle fire, wildland fire, etc.
- ☐ Non-fire emergency event: auto extrication, technical rescue, emergency medical call, service call, etc.
- ☐ On-duty activities: apparatus and station maintenance, meetings, tours, etc.
- ☐ Training activities: formal training classes, in-station drills, multi-company drills, etc.
- ☐ Vehicle event: responding to, returning from, routine driving, etc.
- ☐ Other _____ *(If other, please provide detail.)*

Event date and time: (Required)

_____ MM/DD/YY

_____ 24Hr Time (HH:MM) with 00:00 Midnight

How many hours into the shift were you when the event happened?
(Select only one.)

- ☐ 0-4
- ☐ 5-8
- ☐ 9-12
- ☐ 13-16
- ☐ 17-20
- ☐ 21-24
- ☐ 24+
- ☐ Volunteer

What was your event participation? (Required)
(Select only one.)

- ☐ Involved
- ☐ Witnessed event but not directly involved in the event
- ☐ Told of event, but neither involved nor witnessed event
- ☐ Told To and Submitted by Safety Officer

Weather at time of Event

- ☐ Clear and dry
- ☐ Clear with wet surfaces
- ☐ Clear with frozen surfaces
- ☐ Cloudy and dry
- ☐ Cloudy and rain
- ☐ Cloudy and snow
- ☐ Cloudy and sleet
- ☐ Cloudy and freezing rain
- ☐ Fog with reduced visibility
- ☐ Fog with poor visibility
- ☐ Not reported

Contributing Factors
(Select no more than 5.)

- ☐ Accountability
- ☐ Command
- ☐ Communication
- ☐ Decision Making
- ☐ Equipment
- ☐ Fatigue
- ☐ Horseplay
- ☐ Human Error
- ☐ Individual Action
- ☐ Procedure
- ☐ Protocol
- ☐ Situational Awareness
- ☐ SOP / SOG
- ☐ Staffing
- ☐ Task Allocation
- ☐ Teamwork
- ☐ Training Issue
- ☐ Unknown
- ☐ Weather
- ☐ Other _____ *(If other, please provide detail.)*

Loss Potential
(Select no more than 5.)

- ☐ Environmental
- ☐ Life threatening injury
- ☐ Lost time injury
- ☐ Minor injury
- ☐ Property damage
- ☐ Unknown
- ☐ Other _____ *(If other, please provide detail.)*

Do you think this will happen again?
(Select only one.)

- ☐ Yes
- ☐ No
- ☐ Uncertain

Please submit report and any attachments via mail or fax to: **NATIONAL FIRE FIGHTER NEAR-MISS REPORTING SYSTEM**
4025 Fair Ridge Dr.
Fairfax, VA 22033-2868
Phone 571-238-8287
Fax 703-273-9363

NATIONAL FIRE FIGHTER NEAR-MISS REPORTING SYSTEM

Revised Feb. 5, 2008 (Page 2 of 2)

SECTION 3: EVENT DESCRIPTION

Describe the event.

(Describe the event in the space provided. Your narrative will be reviewed for quality and content. A reviewer will remove all identifying department indicators, names or other information that may identify you or your department. In the next section, you will be asked for suggestions on preventing similar events.)

Keep in mind the following topics when preparing your narrative:

Chain of events	Equipment	Sleep patterns	Staffing	Training
Communication	Incident command	Situational awareness	Task allocation	Weather
Decision making	Role	SOP / SOG	Teamwork	

Please provide narrative below, if additional space is needed, please attach additional pages and title SECTION 3: EVENT DESCRIPTION

SECTION 4: LESSONS LEARNED

Describe the lessons learned as a result of the incident.

(What lessons were learned? What are your suggestions to prevent a similar event? What actions can correct the situation? This will be reviewed for quality and content. A reviewer will remove all identifying department indicators, names or other information that may identify you or your department.)

Keep in mind the following topics when preparing your narrative:

Chain of events	Equipment	Sleep patterns	Staffing	Training
Communication	Incident command	Situational awareness	Task allocation	Weather
Decision making	Role	SOP / SOG	Teamwork	

CONTACT INFORMATION (OPTIONAL AND CONFIDENTIAL):

(Providing your contact information is strictly up to you. If you provide your information, it will not be shared with anyone. A system reviewer may contact you one time if there are questions regarding your report.)

Name _____ Telephone Number (____) _____ E-mail _____

APPENDIX C – FIREFIGHTER AUTOPSY

September 2007 Firefighter Autopsy Protocol

PROTOCOL	DISCUSSION
I. Preliminary A. Circumstances of Death 1. Line-of-duty a. Fire suppression b. Special operations (e.g., hazmat, technical rescue) c. In transit to emergency d. Other official activity 2. Non-line-of-duty a. Active firefighter, unrelated activity b. Former firefighter activity or exposure B. Medical Records Review 1. Fire department injury/exposure records a. Prior incidents b. Prior injuries and treatments 2. Current medical conditions/medications a. Prescribed b. Over-the-counter c. Administered by paramedics C. Complete Work History 1. Length of fire suppression duty 2. Other jobs held during fire service 3. Jobs held after fire service D. Scene Investigation E. Scene Photography 1. The body as discovered 2. The site after the body is removed 3. The body clothed at autopsy 4. The body after removal of clothing 5. Specific shots of body depending on type of injury F. Jurisdiction/Authority to Conduct Autopsy	Firefighters are subject to many uncommon occupational hazards, including toxic and superheated atmospheres; explosions; falls; crushing/penetrating forces; contact with fire, electricity, or hazardous materials; and extremely strenuous and stressful physical activities. The autopsy results may be essential to determine why or how a firefighter was incapacitated, how the activity related to the cause of death, and whether protective equipment performed properly. Having a clear picture of the nature of firefighting operations that were taking place (and to which the deceased was assigned) will assist in identifying possible mechanisms of injury. If the firefighter was reported missing, try to determine the time of last contact or the length of time between the initial report and the finding of the body. The fire department should have an officer or internal Line-of-Duty Death Investigation Team assigned to conduct a death investigation. Other investigators may include the police, the State Fire Marshal (or other State officials), and/or Federal/State agencies responsible for occupational safety and health, including the National Institute for Occupational Safety and Health (NIOSH). Consult with these officials as necessary. In conducting the medical records review, obtain any documents that pertain to the incident. Document the occupational history of the deceased, including the number of years assigned as a "line" firefighter, any history of unusual exposures (or changes in frequency of exposure) to hazardous substances or diseases, and any relevant occupational medical history. Finally, all recent medical history should be reviewed, including documentation of any attempts at onscene resuscitation.
II. Initial Examination A. Identification of Victim B. Document Condition of PPE 1. Refer to PPE diagram in Figure 8 and information in Appendix C for standardized nomenclature. Ppe description should include: a. Turnout coat b. Turnout pants c. Helmet d. Gloves e. Boots f. Self-contained breathing apparatus (SCBA) g. Personal Alert Safety System (PASS) h. Protective hood i. Clothing worn under turnouts j. Other PPE not listed above 2. Use photographs to enhance documentation (see Appendix C)	**Exercise caution when handling contaminated PPE, especially from hazardous materials incidents, as residue may be harmful to those involved in the autopsy. Gloves and other PPE should be used.** Ppe should be sealed in a plastic bag if fire accelerants or other volatile/toxic chemicals are suspected to be present; otherwise PPE should be air-dried and preserved for examination. (Do not store clothing wet.) Preservation of the original state of PPE, including clothing, is essential. Ppe should be considered as evidence, and handled according to the Special Incident Procedures in NFPA 1851, *Standard on Selection, Care, and Maintenance of Structural and Proximity Firefighting Protective Ensembles* (2008 edition). The Death Investigation Team should perform or assist in the evaluation/documentation of PPE condition and performance. Documentation of the chain of custody of the PPE is required, especially as it may be examined by a number of individuals; however, examinations should be limited if the condition of the clothing is fragile and will be further destroyed upon successive evaluations. Upon completion of any examination, PPE should be secured in an evidence storage area. (International Association of Fire Fighters. *Guide for Investigation of a Line-of-Duty Death*. Washington, DC, 2000).

continued on next page

PROTOCOL	DISCUSSION
C. Maintenance of Custody of Equipment 1. Appropriate storage conditions 2. Chain of custody 3. Limitation of handling if clothing and equipment is fragile	Observations and photos recorded at the scene should indicate whether the deceased was found wearing SCBA and/or other PPE. If SCBA and PASS are user-controlled, were they properly activated or working at the time of discovery of the deceased? A swab from the inside of the SCBA facepiece may help in determining operability. A qualified specialist should inspect the PPE and note any damage. NIOSH can assist in the determination of any contribution of the deceased's SCBA to the death. Ppe manufacturers may be able to assist in evaluating damage, but PPE should not be returned to the manufacturer for examination (because of concerns about product liability). Breathing apparatus filter cartridges, if any, should be retained.
III. External Examination A. Document Condition of Body 1. Photograph 2. Radiograph 3. Record color of fingernails 4. Record appearance of blood B. Document Evidence of Injury C. Document Evidence of Medical Treatment D. Collect Evidence from External Surfaces 1. Swabs of nasal/oral soot or other substances* 2. Hair* 3. Injection sites E. Collect Vitreous Fluid F. Document Burns* 1. Location 2. Degree 3. Etiology 4. Percentage of body surface area (BSA) G. Biopsy Skin Lesions	A complete initial examination of the body is important prior to the full autopsy, including X-rays, to help with identification, locate equipment, and look for nonobvious causes of death. Firefighters are trained to provide emergency medical care for fire casualties. Of particular importance is that resuscitative efforts for fellow firefighters are likely to be heroic and prolonged. This fact should be taken into account when examining the body for evidence of medical intervention and when interpreting the results of blood gas assay. Note the presence of soot or other unidentified substances on the skin and place samples (swabs) in a sealed container. Certain internal samples (such as soot swabs and vitreous fluid) which can be done before the body is opened are taken at this point because collection can be accomplished in a more controlled manner, thus reducing the potential for cross-contamination of the surfaces. Hair samples should be about the thickness of a finger, pulled out so as to include the roots, tied around the middle, with the proximal and distal ends marked, and stored in a plastic evidence bag. Match burn injury locations to areas of heat/thermal damage on clothing and equipment. Vitreous fluid should be taken from both eyes. Vitreous fluid can be used to corroborate blood alcohol levels.
IV. Internal Examination A. Document Evidence of Injury B. Document Evidence of Medical Treatment C. Describe Internal Organ System D. Collect Samples for Toxicologic Analysis 1. Blood (2 x 20 cc red- and grey-top tubes) 2. Urine (20 to 30 cc) and/or trimmed bladder 3. Bile (all available) or gallbladder (if bile unavailable)	Soot swabs should be obtained from the upper and lower airways as well as from the inside of the SCBA facepiece. These will assist in the determination of SCBA usage and operability. Note any unusual odors/colors of anything found during the internal examination. Fresh-frozen samples of vital organs should be taken and retained a minimum of 90 days, preferably longer, as storage space permits. An area of growing interest is the cancer rate of firefighters. Potentially cancerous tissue should be biopsied and saved. Additionally, histological type and the exact location of the tumor (if site-specific) within an organ should be documented in detail.

*May not be required for clear traumatic death

continued on next page

PROTOCOL	DISCUSSION
4. Cerebrospinal fluid (up to approx. 30 ml) 5. Soot swabs from airway* a. Tracheal b. Bronchial 6. Representative sampling of gastric and duodenal contents (50 g; note total amount) 7. Take and retain fresh-frozen samples a. Lung 100 g b. Kidney 100 g c. Liver 100 g d. Spleen 100 g e. Skeletal muscle (psoas or thigh) 20 g f. Subcutaneous fat 20 g g. Section of bone with marrow (3-4 cm) h. Brain 100 g 8. Additional specific samples to be taken: a. Tied-off lower lobe of right lung (store in arson debris paint can) b. Peripheral blood from leg vein (fluoridated and red-top tubes) c. Any specimens taken in field or during hospital resuscitation d. Sample hematomas e. Any other sites should be labeled	In the case of incinerated remains, bone marrow or spleen may be the only source of tissue for toxicological studies, especially for those establishing carbon monoxide levels. Request determination of carbon monoxide content and of carbon monoxide-binding capacity of mixture from water extract of spleen, kidneys, or other organs. Gastric and duodenal contents should be representative. Solid dosage forms should be removed, counted, and analyzed. When taking lung samples, use the right lung because aspirated foreign materials have a greater propensity to lodge in the right lung. Soot particles and other heat injuries indicate that the victim was breathing in fire. Absence of soot particles does not prove that the victim was already dead when exposed to the fire.
V. Toxicological Examination A. Urine Screen/Analysis 1. Volatile compounds (e.g., benzene, hydrocarbons including accelerants, ethanol) 2. Psychoactive substances (e.g. opiate derivatives, marijuana metabolites, cocaine metabolites, stimulants, phencyclidine) B. Blood Analysis. 1. Carboxyhemoglobin, methemoglobin, sulfhemoglobin 2. Volatile compounds (see A.I. above) 3. Other (e.g., hydrocyanic acid, flouride) 4. Confirm results of positive urine screen C. Subcutaneous Fat Analysis 1. Organic compounds, including: a. Herbicides b. Pesticides 2. Polychlorinated biphenyls (PCBs) D. Soot Screen (from swabs)* 1. Metals, including: a. Arsenic b. Antimony c. Lead	The toxicologic analysis performed for firefighters should be of a higher order than that performed for civilian fire casualties. In addition to ascertaining blood levels of various toxic products that are commonly found in a fire environment, it is beneficial to know about the presence of any judgment-impairing substances. This may be important in the determination of eligibility for death benefits as well as for determining causality. Determinations of asphyxiation from carbon monoxide levels should take into account victim medical history (i.e., smoking) in addition to other types of exposure. If victim survived carbon monoxide poisoning for several hours, portmortem samples usually will fail to show presence of carboxyhemoglobin. Blood taken at time of admission to hospital still may be available and of particular value. Determination of specific levels of metals, organic compounds, and gross particulate matter should be conducted because firefighter exposure to these substances is believed to be greater than that for civilians. Additionally, this information may yield important clues about the cause, manner, and mechanism of firefighter death. Use vitreous fluids or bile to confirm presence of ethanol in either blood or urine.

*May not be required for clear traumatic death

continued on next page

PROTOCOL	DISCUSSION
2. Organics, including: a. Pesticides b. Herbicides c. Vinyl chloride d. Acrylonitrile e. Acrolein 3. Particulate analysis (e.g., asbestos)	Use caution when noting the presence of hydrocyanic acid, as it can be produced by bacterial decomposition within the tissues of the deceased. Check for the presence of PCBs and polynuclear aromatic compounds in the subcutaneous fat, as this will help in the determination of a history of exposure.
VI. Microscopic Examination A. Findings of Microscopic Examination	Representative samples of all organs and body systems should be collected. The sections should be microscopically examined for malignant neoplasms and other abnormalities, including suggestive premalignant changes
VII. Summary of Pathological Findings A. Medical Facts 1. Correlation	State objective findings related to gross and microscopic examinations. Correlate physical circumstances, toxicological analyses, and other investigative studies to pathological findings.
VIII. Conclusions A. Discrepancies 1. Inconsistent observations 2. Differences between death certificate and subsequent findings B. Conclusions 1. List diagnoses on a separate page 2. Cause and manner of death	Include determination of **cause, manner, and mechanism** of death. Describe discrepancies between evidence collected or observations of eyewitnesses and the autopsy findings.

APPENDIX D – TWINSBURG SICK LEAVE USE

Sick Time Usage by TFD Personnel

YEAR	Sick Time Accumulated	Sick time Used	% Sick Time Used	Sick Time Cashed-Out	% Sick Time Cashed-Out
1996	2614	992.75	37.98%	0.00	0.00%
1997	2892	458.00	15.84%	0.00	0.00%
1998	3216	1017.00	31.62%	0.00	0.00%
1999	3566	1401.50	39.30%	0.00	0.00%
2000	4016	1507.25	37.53%	0.00	0.00%
2001	4080	997.00	24.44%	0.00	0.00%
2002	4152	1669.25	40.20%	276.00	6.65%
2003	4076	1560.75	38.29%	670.25	16.44%
2004	4220	1904.42	45.13%	699.00	16.56%
2005	4412	3054.00	69.22%	453.75	10.28%
2006	4488	1484.25	33.07%	545.25	12.15%
2007	4418	1654.50	37.45%	749.50	16.96%
Average			37.51%		13.18%

Numbers are in Hours

APPENDIX E – WORK READINESS – FIREFIGHTERS SURVEY

1. Working while ill

To investigate occasions where employees remained on duty while sick.

*** 1. Since joining the Fire Department, have you ever arrived for work, or continued to work, when you felt ill?**
Another series of questions will be asked regarding Injury.

- ◯ Yes
- ◯ No
- ◯ Do not recall

*** 2. Referring to the previous question, has this situation happened more than once?**

- ◯ Yes
- ◯ No
- ◯ Do not recall
- ◯ Does not apply

*** 3. In your opinion, has your being ill at work ever effected your ability to complete simple to average tasks?**

- ◯ Yes
- ◯ No
- ◯ Does not apply

*** 4. Have you ever been so ill at work that it may have effected your ability to do complex or strenuous tasks?**

- ◯ Yes
- ◯ No
- ◯ Does not apply

2. Working while injured

To investigate the occasions when employees continued to work while nursing an injury.

*** 1. Since joining the Fire Department, have you ever arrived for work, or continued to work while nursing an injury that effected your strength, range of motion, or caused you significant discomfort? (Consider sprains, strains, fractures, stitches, stiff necks, stiff backs, and the like.)**

- ◯ Yes
- ◯ No
- ◯ Do not recall

*** 2. Referring to the previous question, has this situation happened more than once?**

- ◯ Yes
- ◯ No
- ◯ Do not recall
- ◯ Does not apply

3. In your opinion, has your being at work while injured ever effected your ability to complete simple to average tasks?

- ◯ Yes
- ◯ No
- ◯ Does not apply

*** 4. Have you ever been at work with an injury that may have effected your ability to do complex or strenuous tasks?**

- ◯ Yes
- ◯ No
- ◯ Does not apply

3. Working with impairment

This page will serve to investigate the occurances of employees being at work when they are impaired by some factor other than injury or illnes, i.e., fatigue, over-the-counter medications, or prescription medications.

1. Since joining the Fire Department, have you ever arrived for work, or continued to work, when you were in some way impaired by fatigue, over-the-counter medications, or prescription medication?

- ◯ Yes
- ◯ No
- ◯ Do not recall

2. Referring to the previous question, has this situation occurred more than once?

- ◯ Yes
- ◯ No
- ◯ Do not recall
- ◯ Does not apply

*** 3. In your opinion, has your being at work while impaired ever effected your ability to complete simple to average tasks?**

- ◯ Yes
- ◯ No
- ◯ Does not apply

*** 4. Have you ever been at work with an impairment that may have effected your ability to do complex or strenuous tasks?**

- ◯ Yes
- ◯ No
- ◯ Does not apply

4. Working with other employees that are ill, injured, or impaired.

This page will serve to discover perceptions regarding other employees work-readiness.

*** 1. Since joining the Fire Department, have you ever been present when another employee has reported for duty or remained on duty when they were sick, injured, or impaired?**

- ◯ Yes
- ◯ No
- ◯ Do not recall

2. Referring to the previous question, how often has it occured?

- ◯ Never
- ◯ Just a couple of times
- ◯ Several times
- ◯ On a fairly regular basis

*** 3. On any occasion, have you felt that another employee's illness, injury, or impairment may have affected their ability to complete simple to average tasks?**

- ◯ No
- ◯ Yes
- ◯ Several times
- ◯ Do not recall

*** 4. On any occasion, have you felt that another employee's illness, injury, or impairment may have affected their ability to complete complex or strenuous tasks?**

- ◯ No
- ◯ Yes
- ◯ Several times
- ◯ Do not recall

6. Influences on the work-readiness decision

This page will serve to discover what influences an individual regarding their decision to go to work or use sick time.

*** 1. Please indicate how the following issues influence your decision whether or not to use sick time.**

	No influence	Little influence	Considerable influence	Major influence
How sick, injured, or impaired you are	◯	◯	◯	◯
Your desire to conserve sick time for major illness or injury	◯	◯	◯	◯
Your desire to cash-out as much sick time as possible	◯	◯	◯	◯
Your fear of getting in trouble, being disciplined under current policies	◯	◯	◯	◯
How your condition could adversely effect your coworkers	◯	◯	◯	◯

*** 2. Please rank the following factors as they apply to being sick, injured, or impaired while on duty, 1 being most important and 5 being least important.**

	1	2	3	4	5
It can be unsafe for fire department crews	◯	◯	◯	◯	◯
It is o.k. because we owe it to our "brother/sister" firefighter	◯	◯	◯	◯	◯
It could adversely effect our "customers" or leave a bad impression	◯	◯	◯	◯	◯
It can be unsafe for the sick, injured, or impaired individual	◯	◯	◯	◯	◯
Sick leave policies	◯	◯	◯	◯	◯

5. General feelings about work-readiness

This page will serve to discover who you think should assess worker-readiness, and how you think work-readiness should be assessed.

*** 1. What level of ability do you use to determine whether an employee should be able to work at the fire department?**
Employee can only give...

- ◯ 50% or better effort
- ◯ 60% or better effort
- ◯ 70% or better effort
- ◯ 80% or better effort
- ◯ 90% or better effort
- ◯ No less than 100% effort

*** 2. Who should determine whether an individual is healthy enough or able to work?**

- ◯ The individual
- ◯ The shift commander
- ◯ The chiefs or executive officers
- ◯ The Human Resources Department
- ◯ The doctor
- ◯ Other (please specify)

*** 3. What process should be used to determine an individuals work-readiness when it is called into question?**

- ◯ The individual's opinion
- ◯ The officer's opinion
- ◯ The Doctor's opinion
- ◯ A quick and easy to use evaluation established by Labor/Management agreement
- ◯ Other (please specify)

* **3. What statement below best characterises your opinion of your department's sick leave and attendance policies.**

- ◯ They are o.k., but not evenly enforced
- ◯ They are tolerable but need some improvement
- ◯ They are unfair and unreasonable
- ◯ They are fair, reasonable, and evenly enforced
- ◯ They do not exist

Other (please specify)

7. Demographics

This page will serve to gather information about you.

*** 1. Are you a member of the Twinsburg Fire Department?**

- ◯ Yes
- ◯ No

*** 2. What is your employment status?**

- ◯ Full time
- ◯ Part time
- ◯ Volunteer

3. What is your rank?

- ◯ Firefighter
- ◯ Lieutenant
- ◯ Captain
- ◯ Batalion Chief
- ◯ Assistant/Deputy Chief
- ◯ Chief

*** 4. How many years of service do you have in the fire service?**

*** 5. How many years at your current rank?**

APPENDIX F – WORK READINESS – ADMINISTRATORS SURVEY

1. Worker Readiness

The intent of this survey is to discover information about how fire departments assess employee work-readiness on a daily basis. Human Resources professionals have coined the term "presenteeism" to describe the instances when employees that are sick, injured or impaired, show up for, or are present for work even though their condition could impact their ability to do their job, make others sick, and/or adversely affect the efficiency or effectiveness of their organizations operation.

For the purposes of these questions, "illness" refers to any malady that may inhibit the employee's performance or prove to be contagious, most commonly a severe cold, the flu, sinus infection, gastro-intestinal issues, and the like.

For the purposes of these questions, "injury" refers to a sprain, strain, fracture, stitches, aches, pains, or soreness that may limit the employee's strength, range of motion, or endurance.

For the purposes of these questions, "impairment" will only refer to effects of over-the-counter medications, prescription medications, and fatigue.

2. Worker Readiness

* **1. Do your employees ever arrive for duty or remain on-duty while nursing an illness that could impact their ability to do simple to average tasks?**

- ◯ Yes
- ◯ No
- ◯ Unknown

* **2. Do your employees ever arrive for duty or remain on-duty while nursing an illness that could impact their ability to do strenuous or complicated tasks?**

- ◯ Yes
- ◯ No
- ◯ Unknown

3. Worker Readiness

* **1. Do your employees ever arrive for duty or remain on-duty while nursing an injury that could impact their ability to do simple to average tasks?**

- ◯ Yes
- ◯ No
- ◯ Unknown

* **2. Do your employees ever arrive for duty or remain on-duty while nursing an injury that could impact their ability to do strenuous or complicated tasks?**

- ◯ Yes
- ◯ No
- ◯ Unknown

4. Worker Readiness

* 1. Do your employees ever arrive for duty or remain on-duty while impaired to the extent that it could impact their ability to do simple to average tasks?

- ◯ Yes
- ◯ No
- ◯ Unknown

* 2. Do your employees ever arrive for duty or remain on-duty while impaired to the extent that it could impact their ability to do strenuous or complicated tasks?

- ◯ Yes
- ◯ No
- ◯ Unknown

5. Assessment

*** 1. Do you feel that your department adequately guards against the presence of employees on duty although they may be ill, injured, or impaired?**

- ◯ Yes
- ◯ No
- ◯ Unsure

*** 2. Do you have policies and procedures in place that deal with work-readiness evaluations for day-to-day use?**

- ◯ Yes
- ◯ No

*** 3. On a daily basis, who determines that an individual employee is indeed ready and able to work?**

- ◯ Individual employee
- ◯ Company Officer
- ◯ Shift Commander
- ◯ Chief
- ◯ Human Resources office
- ◯ The Doctor

4. Referring to the previous question, what is used as the basis for that determination?

- ◯ An opinion
- ◯ A doctor's findings
- ◯ A checklist

* **5. What level of ability do you use to determine whether an employee should be able to work at the fire department?**
Employee can give...

- ◯ 60% or better effort
- ◯ 70% or better effort
- ◯ 80% or better effort
- ◯ 90% or better effort
- ◯ 100% effort minimum

6. Assessment

* **1. Generally speaking, would you be in favor of employing an easy to use assessment tool or checklist developed by a labor/management agreement to determine work-readiness when an employees condition is called into question?**

- ◯ Yes
- ◯ No
- ◯ Undecided

2. Does your department already use an assessment tool or checklist similar to the one suggested in the previous question?

- ◯ Yes
- ◯ No

* **3. If you answered "yes" to the question above, is it administered department-wide or just in certain divisions or specialty assignments?**

- ◯ Department-wide
- ◯ Does not apply
- ◯ Certain divisions or specialty assignments (please list)

* **4. Do you feel your employees fully appreciate and actively think about how their presence at work while ill, injured, or impaired could be a contributing factor to the poor outcome of a call?**

- ◯ Yes
- ◯ No
- ◯ Unsure

7. Demographics

* **1. Please characterize your department.**

- ◯ Volunteer
- ◯ Part Time
- ◯ Career
- ◯ Combination: Volunteer, Part Time
- ◯ Combination: Career, Part Time
- ◯ Combination: Career, Volunteer
- ◯ Combination: Career, Part Time, Volunteer

2. Fire Department name.

3. Do you have any additional comments about this subject?

4. Thank you for your time and your consideration of these questions.

If you are willing to be contacted for follow-up information, please fill-in your contact information.

Name:	
Company:	
Address:	
Address 2:	
City/Town:	
State:	
ZIP/Postal Code:	
Country:	
Email Address:	
Phone Number:	

APPENDIX G – SURVEY PARTICIPATION STATISTICS

Survey Participation Statistics

	Firefighter Survey				Administrators Survey	
	Positions On The Roster	Positions Survey Sent To	Individuals Completed Survey		Completed Survey	
Summit County						
Akron	380	155			1	
Barberton	46					
Bath	65	65			1	
Boston Heights	21					
Clinton	20					
Copley	61				1	
Coventry	20					
Cuyahoga Falls	84	84			1	
Fairlawn	49	15			1	
Franklin	35					
Green	45					
Hudson	38					
Hudson EMS	74	74				
Lakemore	23					
Macedonia	30					
Mogadore	23					
Monroe Falls	30					
Northfield Center	36					
Northfield Village	21					
Norton	32	32			1	
Reminderville	30					
Richfield	28					
Springfield	33					
Stow	54	54				
Tallmadge	60					
Twinsburg	58	58	36		1	
Valley	25					
Cuyahoga County						
Solon	60	60				
Portage County						
Aurora	45	45			1	
Kent	33					
Streetsboro	38					
				Total Departments	31	
				Department Name Blank	3	
Total Positions	1597	642		Department Name Listed	8	
Total Participants		172	26.79%	Total Participants	11	35.48%

APPENDIX H – FIREFIGHTER SURVEY RESULTS

Q1. Since joining the Fire Department, have you ever arrived for work, or continued to work, when you felt ill? Another series of questions will be asked regarding Injury.

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	91.9%	158	91.9%	124	91.9%	34
No	6.4%	11	6.7%	9	5.4%	2
Do not recall	1.7%	3	1.5%	2	2.7%	1
	answered question	172		135		37
	skipped question	0		0		0

Q2. Referring to the previous question, has this situation happened more than once?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	80.2%	138	80.0%	108	81.1%	30
No	10.5%	18	10.4%	14	10.8%	4
Do not recall	4.7%	8	5.2%	7	2.7%	1
Does not apply	4.7%	8	4.4%	6	5.4%	2
	answered question	172		135		37
	skipped question	0		0		0

Q3. In your opinion, has your being ill at work ever effected your ability to complete simple to average tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	16.9%	29	15.6%	21	21.6%	8
No	77.9%	134	79.3%	107	73.0%	27
Does not apply	5.2%	9	5.2%	7	5.4%	2
	answered question	172		135		37
	skipped question	0		0		0

Q4. Have you ever been so ill at work that it may have effected your ability to do complex or strenuous tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	43.6%	75	42.2%	57	43.2%	16
No	51.7%	89	51.9%	70	51.4%	19
Does not apply	4.7%	8	4.4%	6	5.4%	2
	answered question	172		135		37
	skipped question	0		0		0

Q5. Since joining the Fire Department, have you ever arrived for work, or continued to work while nursing an injury that effected your strength, range of motion, or caused you significant discomfort? (Consider sprains, strains, fractures, stitches, stiff necks, stiff backs, and the like.)

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	70.2%	118	72.5%	95	62.2%	23
No	29.2%	49	26.7%	35	37.8%	14
Do not recall	0.6%	1	0.7%	1	0.0%	0
	answered question	168		131		37
	skipped question	4		4		0

Q6. Referring to the previous question, has this situation happened more than once?

	All Responces		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	56.5%	95	57.3%	75	54.1%	20
No	18.5%	31	18.3%	24	18.9%	7
Do not recall	3.6%	6	3.8%	5	2.7%	1
Does not apply	21.4%	36	20.6%	27	24.3%	9
	answered question	168		131		37
	skipped question	4		4		0

Q7. In your opinion, has your being at work while injured ever effected your ability to complete simple to average tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	21.4%	36	21.4%	28	21.6%	8
No	60.1%	101	61.1%	80	56.8%	21
Does not apply	18.5%	31	17.6%	23	21.6%	8
	answered question	168		131		37
	skipped question	4		4		0

Q8. Have you ever been at work with an injury that may have effected your ability to do complex or strenuous tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	49.4%	83	51.1%	67	43.2%	16
No	35.1%	59	33.6%	44	40.5%	15
Does not apply	15.5%	26	15.3%	20	16.2%	6
	answered question	168		131		37
	skipped question	4		4		0

Q9. Since joining the Fire Department, have you ever arrived for work, or continued to work, when you were in some way impaired by fatigue, over-the-counter medications, or prescription medication?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	28.7%	47	26.0%	33	37.8%	14
No	70.7%	116	73.2%	93	62.2%	23
Do not recall	0.6%	1	0.8%	1	0.0%	0
	answered question	164		127		37
	skipped question	8		8		0

Q10. Referring to the previous question, has this situation occurred more than once?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	24.4%	40	22.0%	28	32.4%	12
No	27.4%	45	26.8%	34	29.7%	11
Do not recall	1.2%	2	0.8%	1	2.7%	1
Does not apply	47.0%	77	50.4%	64	35.1%	13
	answered question	164		127		37
	skipped question	8		8		0

Q11. In your opinion, has your being at work while impaired ever effected your ability to complete simple to average tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	6.1%	10	5.5%	7	8.1%	3
No	44.5%	73	42.5%	54	51.4%	19
Does not apply	49.4%	81	52.0%	66	40.5%	15
	answered question	164		127		37
	skipped question	8		8		0

Q12. Have you ever been at work with an impairment that may have effected your ability to do complex or strenuous tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	13.4%	22	12.6%	16	16.2%	6
No	47.0%	77	44.9%	57	54.1%	20
Does not apply	39.6%	65	42.5%	54	29.7%	11
	answered question	164		127		37
	skipped question	8		8		0

Q13. Since joining the Fire Department, have you ever been present when another employee has reported for duty or remained on duty when they were sick, injured, or impaired?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Yes	89.0%	145	89.7%	113	86.5%	32
No	8.0%	13	7.9%	10	8.1%	3
Do not recall	3.1%	5	2.4%	3	5.4%	2
	answered question	163		126		37
	skipped question	9		9		0

Q14. Referring to the previous question, how often has it occured?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
Never	9.3%	15	8.8%	11	10.8%	4
Just a couple of times	40.1%	65	41.6%	52	35.1%	13
Several times	45.1%	73	43.2%	54	51.4%	19
On a fairly regular basis	5.6%	9	6.4%	8	2.7%	1
	answered question	162		125		37
	skipped question	10		10		0

Q15. On any occasion, have you felt that another employee's illness, injury, or impairment may have affected their ability to complete simple to average tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
No	42.9%	70	44.4%	56	37.8%	14
Yes	45.4%	74	42.1%	53	56.8%	21
Several times	6.7%	11	7.9%	10	2.7%	1
Do not recall	4.9%	8	5.6%	7	2.7%	1
	answered question	163		126		37
	skipped question	9		9		0

Q16. On any occasion, have you felt that another employee's illness, injury, or impairment may have affected their ability to complete complex or strenuous tasks?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
No	30.1%	49	29.4%	37	32.4%	12
Yes	57.7%	94	58.0%	73	56.8%	21
Several times	8.0%	13	8.0%	10	8.1%	3
Do not recall	4.3%	7	4.8%	6	2.7%	1
	answered question	163		126		37
	skipped question	9		9		0

Q17. What level of ability do you use to determine whether an employee should be able to work at the fire department? Employee can only give...

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
50% or > effort	3.1%	5	2.5%	3	5.4%	2
60% or > effort	0.6%	1	0.8%	1	0.0%	0
70% or > effort	10.1%	16	12.3%	15	2.7%	1
80% or > effort	19.5%	31	16.7%	24	18.9%	7
90% or > effort	41.5%	66	38.5%	47	51.4%	19
No < 100% effort	25.2%	40	26.2%	32	21.6%	8
	answered question	159		122		37
	skipped question	13		13		0

Q18. Who should determine whether an individual is healthy enough or able to work?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
The individual	46.5%	74	48.3%	59	40.5%	15
The shift commander	25.8%	41	27.0%	33	21.6%	8
The chiefs or executive officers	1.9%	3	2.5%	3	0.0%	0
The Human Resources Department	0.0%	0	0.0%	0	0.0%	0
The doctor	9.4%	15	0.0%	11	10.8%	4
Other (please specify)	16.4%	26	13.1%	16	27.0%	10
	answered question	159		122		37
	skipped question	13		13		0

Twinsburg Responses

Respondents	Response Date	Other (please specify)
1	12/19/2008	Doctor, executive officers, evaluation by shift commander
2	12/21/2008	Objectively speaking-Does the employee meets the established criteria?
3	12/21/2008	Possibly all of the above
4	12/21/2008	Shift commander and the individual
5	12/22/2008	DR.s if they are truely honest about persons ability.
6	12/23/2008	Combination of the above.
7	12/23/2008	Shift commander with discussion with that individual
8	12/23/2008	Depends - doctor, OIC, or F/F if witnessed occurance.
9	01/07/2009	Combination of individual and shift commander
17	02/03/2009	COMPANY OFFICER

Q18. Responses Continued

Other Department Responses

Respondents	Response Date	Other (please specify)
10	01/30/2009	Collaboration of the individiual, chief and doctor
11	01/30/2009	The individual and the shift commander
12	01/30/2009	shift commander, individual, doctor if needed
13	02/02/2009	individuals don't always use good judgement
14	02/02/2009	company officer
15	02/02/2009	I believe this decision should involve the individual, their immediate supervisor, and even possibly a doctor when the impairment is significant.
16	02/03/2009	the individual and his/her physician
18	02/03/2009	a combination of the individual & an officer
19	02/03/2009	Individual and Shift Commander
20	02/04/2009	individual,doctor and shift officer
21	02/05/2009	the individual, immediate supervisor and shift commander
22	02/15/2009	Company officer with discussion with shift commander
23	02/17/2009	shift commander and individual should make a sound judgement on weather the individual can give a 100% when needed.
24	02/17/2009	combination of the above
25	02/19/2009	combination of self, crew, OIC
26	02/25/2009	station officers

Q19. What process should be used to determine an individuals work-readiness when it is called into question?

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
The individual's opinion	21.4%	34	22.1%	27	18.9%	7
The officer's opinion	23.9%	38	24.6%	30	21.6%	8
The Doctor's opinion	20.1%	32	23.8%	29	8.1%	3
A quick and easy to use evaluation established by Labor/Management agreement	25.8%	41	23.0%	28	35.1%	13
Other (please specify)	8.8%	14	6.6%	8	16.2%	6
	answered question	159		122		37
	skipped question	13		13		0

Respondents	Response Date	Other (please specify)
1	12/21/2008	See answer #2 above
2	12/21/2008	Possibly all of the above
3	12/21/2008	Shift commander and the individual
4	12/22/2008	there are so many variables. I don't have one answer.
5	12/23/2008	Doctor, OIC, witness.
6	01/07/2009	Combination of individual and shift commander
7	01/31/2009	Both officers and individuals
8	02/02/2009	skills assesment testing
9	02/02/2009	While a single opinion may be enough to establish a lack of
10	02/03/2009	combination of doc, indiv and officer
11	02/03/2009	same as #2
12	02/03/2009	Individual and Officer opinion
13	02/13/2009	combination of individual, officer, possibly DR.
14	02/15/2009	Discussion/intervientionwith immediate supervisor

Q20. Please indicate how the following issues influence your decision whether or not to use sick time.

All Responses

Answer Options	No influence	Little influence	Considerable influence	Major influence	Rating Average	Response Count
How sick, injured, or impaired you are	3 (2.0%)	8 (5.3%)	50 (32.9%)	91 (59.9%)	3.51	152
Your desire to conserve sick time for major illness or injury	33 (21.7%)	45 (29.6%)	48 (31.6%)	26 (17.1%)	2.44	152
Your desire to cash-out as much sick time as possible	92 (60.5%)	34 (22.4%)	15 (9.9%)	11 (7.2%)	1.64	152
Your fear of getting in trouble, being disciplined under current policies	58 (38.2%)	39 (25.7%)	30 (19.7%	25 (16.4%)	2.14	152
How your condition could adversely effect your coworkers	6 (3.9%)	28 (18.4%)	74 (48.7%)	44 (28.9%)	3.03	152
					answered question	152
					skipped question	20

Twinsburg

Answer Options	No influence	Little influence	Considerable influence	Major influence	Rating Average	Response Count
How sick, injured, or impaired you are	0 (0.0%)	3 (8.1%)	17 (45.9%)	17 (45.9%)	3.38	37
Your desire to conserve sick time for major illness or injury	9 (24.3%)	13 (35.1%)	10 (27.0%)	5 (13.4%)	2.30	37
Your desire to cash-out as much sick time as possible	29 (78.4%)	5 (13.5%)	3 (8.1%)	0 (0.0%)	1.30	37
Your fear of getting in trouble, being disciplined under current policies	11 (29.7%)	7 (18.9%)	10 (27.0%)	9 (24.3%)	2.46	37
How your condition could adversely effect your coworkers	1 (2.7%)	6 (16.2%)	22 (59.5%)	8 (21.6%)	3.00	37
					answered question	37
					skipped question	0

Q20. Responses Continued

Other Departments						
Answer Options	No influence	Little influence	Considerable influence	Major influence	Rating Average	Response Count
How sick, injured, or impaired you are	3 (2.6%)	5 (4.3%)	33 (28.7%)	74 (64.3%)	3.55	115
Your desire to conserve sick time for major illness or injury	24 (20.9%)	32 (27.8%)	38 (33.0%)	21 (18.3%)	2.49	115
Your desire to cash-out as much sick time as possible	63 (54.8%)	29 (25.2%)	12 (10.4%)	11 (9.6%)	1.75	115
Your fear of getting in trouble, being disciplined under current policies	47 (40.9%)	32 (27.8%)	20 (17.4%)	16 (13.9%)	2.04	115
How your condition could adversely effect your coworkers	5 (4.3%)	22 (19.1%)	52 (45.2%)	36 (31.3%)	3.05	115
					answered question	115
					skipped question	20

Q21. Please rank the following factors as they apply to being sick, injured, or impaired while on duty, 1 being most important and 5 being least important.

All Responses

Answer Options	1	2	3	4	5	Rating Average	Response Count
It can be unsafe for fire department crews	80 (71.4%)	22 (19.6%)	6 (5.4%)	3 (2.7%)	1 (0.9%)	1.42	112
It is o.k. because we owe it to our "brother/sister" firefighter	5 (4.0%)	10 (7.9%)	35 (27.8%)	32 (25.4%)	44 (34.9%)	3.79	126
It could adversely effect our "customers" or leave a bad impression	4 (3.3%)	32 (25.4%)	43 (35.5%)	29 (24.0%)	13 (10.7%)	3.12	121
It can be unsafe for the sick, injured, or impaired individual	37 (26.8%)	51 (37.0%)	27 (19.6%)	18 (13.0%)	5 (3.6%)	2.3	138
Sick leave policies	11 (7.7%)	17 (12.0%)	23 (16.2%)	36 (25.3%)	55 (38.7%)	3.75	142
						answered question	152
						skipped question	20

Twinsburg

Answer Options	1	2	3	4	5	Rating Average	Response Count
It can be unsafe for fire department crews	21 (75.0%)	3 (10.7%)	4 (14.3%)	0 (0.0%)	0 (0.0%)	1.39	28
It is o.k. because we owe it to our "brother/sister" firefighter	1 (3.1%)	1 (3.1%)	5 (15.6%)	15 (46.9%)	10 (31.3%)	4.00	32
It could adversely effect our "customers" or leave a bad impression	1 (3.4%)	9 (31.0%)	10 (34.5%)	6 (20.7%)	3 (10.3%)	3.03	29
It can be unsafe for the sick, injured, or impaired individual	8 (23.5%)	14 (41.2%)	7 (20.6%)	3 (8.8%)	2 (5.9%)	2.32	34
Sick leave policies	3 (8.3%)	6 (16.7%)	6 (16.7%)	6 (16.7%)	15 (41.7%)	3.67	36
						answered question	37
						skipped question	0

Q21. Responses Continued

Other Departments

Answer Options	1	2	3	4	5	Rating Average	Response Count
It can be unsafe for fire department crews	59 (70.2%)	19 (22.6%)	2 (2.4%)	3 (3.6%)	1 (1.2%)	1.43	84
It is o.k. because we owe it to our "brother/sister" firefighter	4 (4.3%)	9 (9.6%)	30 (31.9%)	17 (18.1%)	34 (36.2%)	3.73	94
It could adversely effect our "customers" or leave a bad impression	3 (3.3%)	23 (25.0%)	33 (35.9%)	23 (25.0%)	10 (10.9%)	3.16	92
It can be unsafe for the sick, injured, or impaired individual	29 (27.9%)	37 (35.6%)	20 (19.2%)	15 (14.4%)	3 (2.9%)	2.29	104
Sick leave policies	8 (7.5%)	11 (10.4%)	17 (16.3%)	30 (28.3%)	40 (37.7%)	3.78	106
						answered question	152
						skipped question	20

Q22. What statement below best characterises your opinion of your department's sick leave and attendance policies.

	All Responses		Other Departments		Twinsburg	
Answer Options	Response Percent	Response Count				
They are unfair and unreasonable	7.2%	11	4.3%	5	16.2%	6
They are tolerable but need some improvement	24.3%	37	19.1%	22	40.5%	15
They are o.k., but not evenly enforced	19.1%	29	22.6%	26	8.1%	3
They are fair, reasonable, and evenly enforced	40.8%	62	42.6%	49	35.1%	13
They do not exist	8.6%	13	11.3%	13	0.0%	0
Comments		8		3		5
	answered question	152		115		37
	skipped question	20		20		0

Twinsburg Responses

1	12/19/2008	Our policy favors workers who are single, no children, or have children with a stay at home spouse.I do not use sick time for myself because I know each of my children will be sick at least once a year. Forcing me to use sick time to be home with them. I have had doctors excuses for every time I have had to use sick time to stay home with my children or my spouse, but when I have had to call off sick for myself, just for general illness , I have been required to bring in a doctors excuse even though all other absences were FMLA or had doctors excuses. Single Workers know they can call off sick three times without having to bring in a doctors excuse proving they were ill. Same goes for workers that have a stay at home spouse. They do not have to use sick time to stay home with their children.
2	12/20/2008	Providing a Doctors excuse is driving up unnecessary claims and borderline HIPPA violation.
3	12/21/2008	We have the time. We should be able to use it without fear of dicipline from the AC
4	12/22/2008	if a person can do light duty, some get it and some don't depending on who it may be, not if it's there to use. This also effects how the indivdual comes back and under what statice.
5	12/27/2008	they should not be the same as with other jobs where emergency work is NOT being performed.

Other Departments

6	01/30/2009	Don't know what they are
7	01/30/2009	Not Sure
8	02/02/2009	Too rigid, and lack concern for the individual circumstances.

Q23. Are you a member of the Twinsburg Fire Department?

Answer Options	Response Percent	Response Count	Other Departments		Twinsburg	
Yes	24.8%	37	0.0%	0	100.0%	37
No	75.2%	112	100.0%	112	0.0%	0
	answered question	149		112		37
	skipped question	23		23		0

Q24. What is your employment status?

Answer Options	Response Percent	Response Count	Other Departments		Twinsburg	
Full time	70.5%	105	93.8%	79	70.3%	26
Part time	18.8%	28	15.2%	17	29.7%	11
Volunteer	10.7%	16	14.3%	16	0.0%	0
	answered question	149		112		37
	skipped question	23		23		0

Q25. What is your rank?

Answer Options	Response Percent	Response Count	Other Departments		Twinsburg	
Firefighter	59.1%	81	52.0%	52	78.4%	29
Lieutenant	24.8%	34	31.0%	31	8.1%	3
Captain	6.6%	9	6.0%	6	8.1%	3
Batalion Chief	2.2%	3	3.0%	3	0.0%	0
Assistant/Deputy Chief	4.4%	6	5.0%	5	2.7%	1
Chief	2.9%	4	3.0%	3	2.7%	1
	answered question	137		100		37
	skipped question	35		35		0

Q26. How many years of service do you have in the fire service?

	Response Count	Other Departments	Twinsburg
	149	112	37
answered question	149	112	37
skipped question	23	23	0

Twinsburg Responses

	Response Date	Response Text
1	12/19/2008	24
2	12/19/2008	34.25
3	12/19/2008	13
4	12/19/2008	2
5	12/20/2008	4
6	12/20/2008	18
7	12/20/2008	10
8	12/20/2008	5
9	12/20/2008	2
10	12/20/2008	6
11	12/20/2008	4
12	12/21/2008	11
13	12/21/2008	20
14	12/21/2008	2.5
15	12/21/2008	8
16	12/21/2008	13
17	12/21/2008	19
18	12/21/2008	19
19	12/21/2008	24
20	12/21/2008	20
21	12/22/2008	22
22	12/22/2008	20
23	12/22/2008	23
24	12/22/2008	23
25	12/23/2008	27
26	12/23/2008	15
27	12/23/2008	12
28	12/23/2008	15
29	12/23/2008	24
30	12/27/2008	15
31	12/28/2008	35
32	01/05/2009	16
33	01/06/2009	12
34	01/07/2009	16.5
35	01/14/2009	21
36	01/21/2009	23
97	02/03/2009	23

Q26 Responses, Continued

Other Department Responses

	Response Date	Response Text		Response Date	Response Text		Response Date	Response Text
37	01/30/2009	6	77	02/02/2009	8	118	02/06/2009	13
38	01/30/2009	35	78	02/02/2009	33	119	02/06/2009	10
39	01/30/2009	5	79	02/02/2009	9	120	02/06/2009	13
40	01/30/2009	9	80	02/02/2009	21	121	02/07/2009	3
41	01/30/2009	6	81	02/02/2009	24	122	02/08/2009	30
42	01/30/2009	0	82	02/02/2009	8	123	02/08/2009	5
43	01/30/2009	13	83	02/02/2009	30	124	02/09/2009	24
44	01/30/2009	1.5	84	02/02/2009	16	125	02/09/2009	20
45	01/30/2009	7	85	02/02/2009	3	126	02/11/2009	30
46	01/30/2009	4	86	02/02/2009	17	127	02/13/2009	27
47	01/30/2009	28	87	02/02/2009	21	128	02/14/2009	8
48	01/30/2009	7	88	02/03/2009	28	129	02/14/2009	2
49	01/30/2009	30	89	02/03/2009	19	130	02/14/2009	6
50	01/30/2009	1	90	02/03/2009	20	131	02/14/2009	20
51	01/30/2009	24	91	02/03/2009	18	132	02/14/2009	23
52	01/30/2009	15	92	02/03/2009	32	133	02/15/2009	18
53	01/30/2009	3	93	02/03/2009	40	134	02/15/2009	18
54	01/30/2009	13	94	02/03/2009	18	135	02/15/2009	26
55	01/30/2009	14	95	02/03/2009	28	136	02/15/2009	7
56	01/30/2009	23	96	02/03/2009	33	137	02/15/2009	28
57	01/30/2009	9	98	02/03/2009	15	138	02/15/2009	15
58	01/30/2009	21	99	02/03/2009	25.5	139	02/16/2009	23
59	01/30/2009	-1	100	02/03/2009	24.5	140	02/16/2009	10
60	01/30/2009	10	101	02/03/2009	15	141	02/17/2009	40
61	01/30/2009	15	102	02/03/2009	28	142	02/17/2009	15
62	01/30/2009	20	103	02/03/2009	12	143	02/17/2009	31
63	01/30/2009	1	104	02/03/2009	29	144	02/17/2009	8
64	01/30/2009	10	105	02/04/2009	10	145	02/18/2009	25
65	01/31/2009	3.5	106	02/04/2009	30	146	02/18/2009	24
66	01/31/2009	7	107	02/04/2009	17	147	02/19/2009	10
67	01/31/2009	5	108	02/04/2009	30	148	02/19/2009	7
68	01/31/2009	9	109	02/04/2009	15	149	02/25/2009	25
69	01/31/2009	10	110	02/04/2009	10			
70	01/31/2009	5	111	02/04/2009	10			
71	01/31/2009	9	112	02/04/2009	17			
72	02/01/2009	20	113	02/04/2009	8			
73	02/01/2009	1	114	02/05/2009	25			
74	02/01/2009	18	115	02/05/2009	34			
75	02/01/2009	16	116	02/05/2009	29			
76	02/02/2009	21	117	02/06/2009	15			

Q27. How many years at your current rank?

	Response Count	Other Departments	Twinsburg
	149	112	37
answered question	149	112	37
skipped question	23	23	0

Twinsburg Responses

	Response Date	Response Text
1	12/19/2008	3
2	12/19/2009	11.5
3	12/19/2008	9
4	12/19/2008	2
5	12/20/2008	4
6	12/20/2008	16
7	12/20/2008	10
8	12/20/2008	5
9	12/20/2008	2
10	12/20/2008	2
11	12/20/2008	4
12	12/21/2008	11
13	12/21/2008	20
14	12/21/2008	2.5
15	12/21/2008	8
16	12/21/2008	13
17	12/21/2008	19
18	12/21/2008	16
19	12/21/2008	10
20	12/21/2008	20
21	12/22/2008	22
22	12/22/2008	12
23	12/22/2008	23
24	12/22/2008	23
25	12/23/2008	11
26	12/23/2008	2
27	12/23/2008	12
28	12/23/2008	15
29	12/23/2008	14
30	12/27/2008	10
31	12/28/2008	30
32	01/05/2009	16
33	01/06/2009	6
34	01/07/2009	13.69
35	01/14/2009	21
36	01/21/2009	15
91	02/03/2009	12

Q27 Responses, Continued

Other Department Responses

	Response Date	Response Text		Response Date	Response Text		Response Date	Response Text
37	01/30/2009	4	78	02/02/2009	14	120	02/06/2009	2
38	01/30/2009	9	79	02/02/2009	5	121	02/07/2009	3
39	01/30/2009	5	80	02/02/2009	12	122	02/08/2009	30
40	01/30/2009	9	81	02/02/2009	14	123	02/08/2009	5
41	01/30/2009	5	82	02/02/2009	8	124	02/09/2009	3
42	01/30/2009	0	83	02/02/2009	30	125	02/09/2009	20
43	01/30/2009	3	84	02/02/2009	4	126	02/11/2009	3
44	01/30/2009	1.5	85	02/02/2009	n/a	127	02/13/2009	27
45	01/30/2009	7	86	02/02/2009	17	128	02/14/2009	1
46	01/30/2009	4	87	02/02/2009	4	129	02/14/2009	2
47	01/30/2009	12	88	02/03/2009	28	130	02/14/2009	6
48	01/30/2009	EMT-B	89	02/03/2009	2	131	02/14/2009	20
49	01/30/2009	6	90	02/03/2009	11	132	02/14/2009	23
50	01/30/2009	1	92	02/03/2009	22	133	02/15/2009	5
51	01/30/2009	1.5	93	02/03/2009	31	134	02/15/2009	18
52	01/30/2009	3	94	02/03/2009	18	135	02/15/2009	10
53	01/30/2009	3	95	02/03/2009	13	136	02/15/2009	1
54	01/30/2009	1	96	02/03/2009	5	137	02/15/2009	8
55	01/30/2009	14	97	02/03/2009	12	138	02/15/2009	15
56	01/30/2009	23	98	02/03/2009	3	139	02/16/2009	18
57	01/30/2009	7	99	02/03/2009	5.3	140	02/16/2009	10
58	01/30/2009	21	100	02/03/2009	11	141	02/17/2009	8
59	01/30/2009	27	101	02/03/2009	5	142	02/17/2009	2
60	01/30/2009	1.5	102	02/03/2009	10	143	02/17/2009	10
61	01/30/2009	8	103	02/03/2009	12	144	02/17/2009	1
62	01/30/2009	2.5	104	02/03/2009	19	145	02/18/2009	18
63	01/30/2009	1	105	02/04/2009	10	146	02/18/2009	2
64	01/30/2009	10	106	02/04/2009	4	147	02/19/2009	10
65	01/31/2009	3.5	107	02/04/2009	3	148	02/19/2009	7
66	01/31/2009	7	108	02/04/2009	16	149	02/25/2009	13
67	01/31/2009	5	109	02/04/2009	15			
68	01/31/2009	9	110	02/04/2009	10			
69	01/31/2009	10	111	02/04/2009	10			
70	01/31/2009	4	112	02/04/2009	17			
71	01/31/2009	9	113	02/04/2009	8			
72	02/01/2009	20	114	02/05/2009	8			
73	02/01/2009	1	115	02/05/2009	7			
74	02/01/2009	4	116	02/05/2009	8			
75	02/01/2009	8	117	02/06/2009	15			
76	02/02/2009	8	118	02/06/2009	13			
77	02/02/2009	8	119	02/06/2009	2			

APPENDIX I – ADMINISTRATOR SURVEY RESULTS

Q1. Do your employees ever arrive for duty or remain on-duty while nursing an illness that could impact their ability to do simple to average tasks?

	All Responses				
Answer Options	Response Percent	Response Count	Other Departments		Chief Racine
Yes	27.3%	3	20.00%	2	1
No	63.6%	7	70.00%	7	
Unknown	9.1%	1	10.00%	1	
	answered question	11		10	
	skipped question	0		0	

Q2. Do your employees ever arrive for duty or remain on-duty while nursing an illness that could impact their ability to do strenuous or complicated tasks?

	All Responses				
Answer Options	Response Percent	Response Count	Other Departments		Chief Racine
Yes	63.6%	7	60.00%	6	1
No	36.4%	4	40.00%	4	
Unknown	0.0%	0	0.00%	0	
	answered question	11		10	
	skipped question	0		0	

Q3. Do your employees ever arrive for duty or remain on-duty while nursing an injury that could impact their ability to do simple to average tasks?

	All Responses				
Answer Options	Response Percent	Response Count	Other Departments		Chief Racine
Yes	40.0%	4	33.33%	3	1
No	50.0%	5	55.55%	5	
Unknown	10.0%	1	11.11%	1	
	answered question	10		9	
	skipped question	1		1	

Q4. Do your employees ever arrive for duty or remain on-duty while nursing an injury that could impact their ability to do strenuous or complicated tasks?

	All Responses				
Answer Options	Response Percent	Response Count	Other Departments		Chief Racine
Yes	60.0%	6	66.66%	6	
No	40.0%	4	33.33%	3	1
Unknown	0.0%	0	0.00%	0	
	answered question	10		9	
	skipped question	1		1	

Q5. Do your employees ever arrive for duty or remain on-duty while impaired to the extent that it could impact their ability to do simple to average tasks?

	All Responses		Other Departments		Chief Racine
Answer Options	Response Percent	Response Count			
Yes	11.1%	1	0.00%	0	1
No	77.8%	7	87.50%	7	
Unknown	11.1%	1	12.50%	1	
	answered question	9		8	
	skipped question	2		2	

Q6. Do your employees ever arrive for duty or remain on-duty while impaired to the extent that it could impact their ability to do strenuous or complicated tasks?

	All Responses		Other Departments		Chief Racine
Answer Options	Response Percent	Response Count			
Yes	55.6%	5	62.50%	5	
No	33.3%	3	37.50%	3	
Unknown	11.1%	1	0.00%	0	1
	answered question	9		8	
	skipped question	2		2	

Q7. Do you feel that your department adequately guards against the presence of employees on duty although they may be ill, injured, or impaired?

	All Responses		Other Departments		Chief Racine
Answer Options	Response Percent	Response Count			
Yes	55.6%	5	62.50%	5	
No	22.2%	2	25.00%	2	
Unsure	22.2%	2	12.50%	1	1
	answered question	9		8	
	skipped question	2		2	

Q8. Do you have policies and procedures in place that deal with work-readiness evaluations for day-to-day use?

	All Responses		Other Departments		Chief Racine
Answer Options	Response Percent	Response Count			
Yes	55.6%	5	50.00%	4	1
No	44.4%	4	50.00%	4	
	answered question	9		8	
	skipped question	2		2	

Q9. On a daily basis, who determines that an individual employee is indeed ready and able to work?

Answer Options	Response Percent	Response Count	Other Departments		Chief Racine	
Individual employee	22.2%	2	25.00%	2		
Company Officer	44.4%	4	37.50%	3		1
Shift Commander	22.2%	2	25.00%	2		
Chief	11.1%	1	12.50%	1		
Human Resources office	0.0%	0	0.00%	0		
The Doctor	0.0%	0	0.00%	0		
	answered question	9		8		
	skipped question	2		2		

Q10. Referring to the previous question, what is used as the basis for that determination?

Answer Options	Response Percent	Response Count	Other Departments		Chief Racine	
An opinion	88.9%	8	87.50%	7		1
A doctor's findings	11.1%	1	12.50%	1		
A checklist	0.0%	0	0.00%	0		
	answered question	9		8		
	skipped question	2		2		

Q11. What level of ability do you use to determine whether an employee should be able to work at the fire department? Employee can give...

Answer Options	Response Percent	Response Count	Other Departments		Chief Racine	
60% or better effort	22.2%	2	25.00%	2		
70% or better effort	0.0%	0	0.00%	0		
80% or better effort	11.1%	1	12.50%	1		
90% or better effort	55.6%	5	62.50%	5		
100% effort minimum	11.1%	1	0.00%	0		1
	answered question	9		8		
	skipped question	2		2		

Q12. Generally speaking, would you be in favor of employing an easy to use assessment tool or checklist developed by a labor/management agreement to determine work-readiness when an employees condition is called into question?

	All Responses		Other Departments		Chief Racine	
Answer Options	Response Percent	Response Count				
Yes	88.9%	8	87.50%	7		1
No	0.0%	0	0.00%	0		
Undecided	11.1%	1	12.50%	1		
	answered question	9		8		
	skipped question	2		2		

Q13. Does your department already use an assessment tool or checklist similar to the one suggested in the previous question?

	All Responses		Other Departments		Chief Racine	
Answer Options	Response Percent	Response Count				
Yes	0.0%	0	0.00%	0		
No	100.0%	8	100.00%	7		1
	answered question	8		7		
	skipped question	3		3		

Q14. If you answered you answered "yes" to the question above, is it administered department-wide or just in certain divisions or specialty assignments?

	All Responses		Other Departments		Chief Racine	
Answer Options	Response Percent	Response Count				
Department-wide	0.0%	0	0.00%	0		
Does not apply	100.0%	8	100.00%	8		1
Certain divisions or specialty assignments (please list)	0.0%	0	0.00%	0		
	answered question	9		8		
	skipped question	2		2		

Q15. Do you feel your employees fully appreciate and actively think about how their presence at work while ill, injured, or impaired could be a contributing factor to the poor outcome of a call?

	All Responses		Other Departments		Chief Racine	
Answer Options	Response Percent	Response Count				
Yes	44.4%	4	50.00%	4		
No	44.4%	4	50.00%	4		
Unsure	11.1%	1	0.00%	0		1
	answered question	9		8		
	skipped question	2		2		

Q16. Please characterize your department.

	All Responses		Other Departments		Chief Racine	
Answer Options	Response Percent	Response Count				
Volunteer	0.0%	0	0.0%	0		
Part Time	11.1%	1	12.5%	1		
Career	22.2%	2	25.0%	2		
Combination: Volunteer, Part Time	0.0%	0	0.0%	0		
Combination: Career, Part Time	66.7%	6	62.5%	5		1
Combination: Career, Volunteer	0.0%	0	0.0%	0		
Combination: Career, Part Time, Volunteer	0.0%	0	0.0%	0		
	answered question	9		8		
	skipped question	2		2		

Q17. Fire Department name.

	All Responses		Other Departments	Chief Racine
Answer Options		Response Count		
		8	7	1
	answered question	8	7	
	skipped question	3	3	

Fire Department name.

Respondents		Response Date	Response Text
	1	01/30/2009	Norton Fire
	2	01/30/2009	Aurora
	3	01/30/2009	Copley Fire Department
Chief Racine	4	02/02/2009	Twinsburg
	5	02/02/2009	City of Akron Division of Fire
	6	02/06/2009	Fairlawn Fire Department
	7	07/08/2009	Cuyahoga Falls Fire Department
	8	07/09/2009	Bath

Q18. Do you have any additional comments about this subject?

Answer Options	All Responses	Response Count	Other Departments	Chief Racine
		7	6	1
	answered question	7	6	
	skipped question	4	4	

Do you have any additional comments about this subject?

Respondents		Response Date	Response Text
	1	01/30/2009	Employees who are injured or impaired to a small degree may be given a light duty assignment.
	2	01/30/2009	Good luck in your research.
Chief Racine	3	02/02/2009	It is an important one. Too often those responsible (employee and company officer) to ensure an employee is at top effiecieny to work are too content to look the other way.
	4	02/02/2009	If an employee has a doctor's note we always defer to the professional opinion. Ohterwise, the employee's self-assessment is the overriding factor. I strongly suspect that an employee would have to be significantly impaired before a supervisor would insert themselves into the situation. I suppose that's our organizational culture at work.
	5	02/06/2009	If a process is developed I would like a copy of what you do or find.
	6	07/08/2009	Illness is up to the individual but an officer evaluates the condition of the employee and can and has sent to doctor for evaulation
	7	07/09/2009	We have an alcohol and drug testing procedure. A supervisor can for any reason require a MD physical.

If you are willing to be contacted for follow-up information please fill-in your contact information

Respondents	Response Date			
1	01/30/2009	David Barnes Aurora F.D. 65 W. Pioneer Trail Aurora	OH	44202
2	01/30/2009	Michael Benson Copley Fire Department 1540 S. Cleveland-Massillon Rd Copley	OH	44321
3	02/02/2009	Richard Racine Twinsburg Fire 10069 Ravenna Road Twinsburg	OH	44087
4	02/02/2009	Brent Combs Akron Fire 146 S. High St. #1001 Akron	OH	44308
5	02/06/2009	Chief Goodrich Fairlawn Fire Department 3525 S. Smith Rd Fairlawn	OH	44333
6	07/08/2009	Paul Moledor Cuyahoga Fire Department		
7	07/09/2009	Jim Paulett Bath Fire Dept. 3864 W. Bath Rd Akron	OH	44333

APPENDIX J – SUMMIT COUNTY HAZARDOUS MATERIALS TEAM PRE-SUIT MEDICAL EXAM

Pre-suit medical examination:

This examination is conducted at the work-site immediately prior to (not over 2 hours) in-suit activities. This exam is intended to determine whether or not someone is physically fit, at that point in time, for suit entry. This is required for all personnel wearing Level A and Level B suits.

History:

New medical problems within the past two weeks?

All medications, including over-the-counter (OTC) drugs and herbal preparations?

Medical allergies?

Alcohol consumption in the past 24 hours/past two hours?

Exam:

Vital signs – temp, pulse, resp rate, BP and body weight

Skin lesions? Lung sounds?

Brief mental status exam?

*Requirement:

Pre-suit oral hydration of 8-16 ounces of water or electrolyte solution

Criteria to deny entry (by history):

New onset heart/lung problems, hypertension, diabetes – or a recent change in medications for these.

Within 72 hours – any nausea, vomiting, diarrhea, fever, heat exhaustion

New prescription medications – check with med control. OTCs – cold/sinus medications, decongestants, antihistamines.

Heavy alcohol intake within the past 24 hours, any alcohol intake in the past two hours.

Criteria to deny entry (by exam):

Temperature:

> 99 F. oral or 100.5 F. core,

Respiratory rate:

> 24 / min.

Blood pressure:

diastolic > 105 mm Hg,

Pulse:

> 70% of max heart rate {(220-age) x 0.7}

Skin:

open sores, large areas of rash or sunburn

Lungs:

wheezing or congested lung sounds

Hard contact lenses

As determined by the safety officer, the Hazmat control officer or the Medical Advisor

Age predicted heart rates

Age	70%	85%
20-25	140	170
25-30	136	165
30-35	132	160
35-40	128	153
40-45	125	149
45-50	122	145
50-55	119	140
55-60	116	136