

*Research Project Proposal*

*Part-time Firefighter Retention -Why Don't They Stay in Sylvania Township?*

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A proposed research project submitted to the Ohio Fire Executive Program

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## 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.

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## Abstract

The problem that this study investigated was that the Sylvania Township Fire Department had experienced a limited retention of part-time firefighters which resulted in a significant cost to the department. The purpose of this study was to identify research-based information that would help improve part-time firefighter retention within the Sylvania Township Fire Department (STFD). The research attempted to provide the STFD Administration with research-based information to aide them in developing strategies that would improve part-time firefighter retention.

Descriptive research methodology was used to answer the following questions:

1. What does the STFD do to retain part-time firefighters?
2. What are the factors that contribute to the loss of part-time firefighters at the STFD?
3. What are some of the most significant costs associated with employing part-time firefighters?
4. What do some other fire departments similar to STFD do that might affect the retention of part-time firefighters?

Data for this research study was collected through an extensive review of literature, an internal survey of both current and former STFD part-time firefighters, and an external survey of combination departments in the region that employ part-time firefighters. Data was then organized, analyzed, and documented.

The research results revealed that the STFD does take some measures to retain part-time firefighters, but it clearly does not do enough. The data revealed that some potential retention factors included a desire for full-time employment, generational components, and the extent that

a part-time firefighter is engaged at the STFD just to name a few.

The data also revealed some areas of significant cost in employing part-time firefighters was in the areas of equipping firefighters, wage increases to remain competitive, and training costs. The majority of fire departments similar to STFD also have problems with part-time firefighter retention, and some are developing strategies that may affect retention.

Recommendations from the research included the development of a formal retention strategy, continued utilization of an exit interview process to identify resignation trends, development of a formal part-time firefighter mentorship program, and an evaluation of the Recruit Training Program for quality, consistency, and working environment.

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## INTRODUCTION

### **Statement of the Problem**

*The problem that this study will address is that the Sylvania Township Fire Department has experienced a limited retention of part-time firefighters resulting in a significant cost to the department.*

### **Purpose of the Study**

*The purpose of this study is to identify research-based information that will help improve part-time firefighter retention within the Sylvania Township Fire Department (STFD). The research will attempt to provide the STFD Administration with research-based information to aid them in developing strategies that will improve part-time firefighter retention.*

### **Research Questions**

Using *descriptive research methodology*, the research questions this study will investigate are:

1. What does the STFD do to retain part-time firefighters?
2. What are the factors that contribute to the loss of part-time firefighters at the STFD?
3. What are some of the most significant costs associated with employing part-time firefighters?
4. What do other fire departments similar to STFD do that might affect the retention of part-time firefighters?

## **Background and significance**

### **Background**

The Sylvania Township Fire Department is a combination department that provides emergency service to both Sylvania Township, and the City of Sylvania. Sylvania Township is a growing suburban community which is located in NW Ohio, and is a western suburb of Toledo, Ohio. We are 56 mi. SW of Detroit, MI and about 10 mi. NW of Toledo. We have a population of 48,487 (US Census), with a primary response area of 35 sq. miles, which covers both Sylvania Township, and the City of Sylvania. Our primary response area consists of 10% agricultural, 25% commercial, and 65% residential areas.

The department is currently staffed with 65 career and 3 current part-time members. All 65 career firefighters are EMT-Paramedics who are trained to the FF2 level, and all also possess Ohio Fire Inspector certifications. All of our 3 part-time firefighters are trained to at least FF1, and EMT-Basic levels. We have 24 certified Fire instructors, and 5 Certified EMS instructors. The majority of our training is performed within the department, but we also promote and encourage members to take outside training opportunities as well. The STFD currently has an ISO rating of 2 (Sylvania Township, 2019).

Part-time firefighters are required to possess a minimum of both FF1, and EMT-Basic level certification prior to hire. The STFD is not a certified training center, and as a result, is not able to certify its members in FF2, EMT-paramedic, Haz-Mat, confined space rescue, etc. These certifications can be obtained by the part-time member from institutions such as the Owens Community College, Ohio Fire Academy in Reynoldsburg, Ohio, or the BGSU Fire School in Bowling Green, Ohio. The STFD currently does not have budgeted funds to send part-time firefighters to such institutions for additional training above and beyond what is provided in

the STFD recruit training program.

The STFD recruit training program is conducted through the STFD Fire Training Bureau which is led by the department Training and Safety officer, Captain Aaron Frye. The program is a minimum of 368 hours, and it is completed in two phases.

During phase one of the program, the recruit is on a 40-hour administrative schedule for two weeks where Job Performance Requirements (JPR's) for various topics are covered. These topics include STFD orientation, FD Administration, FD communication, radio procedures, HIPPA review, NIMS 100, 200, 700, and 800, search and rescue, SCBA, PPE, hose loads and hose pulls, ventilation, ground ladders, forcible entry, roadway safety, vehicle fires, and structure fires. Phase one concludes with live burn training which is conducted at the STFD King Road Training Facility.

During phase two of the program, the recruit is placed as the fourth member of a crew, but not counted as staffing during the program, for a minimum of three shifts at each station on their assigned shift. Apparatus orientation packets are distributed and completed, and the recruit continues to build on the basics while completing remaining JPR's prior to being assigned as the third member of a crew.

We have mutual and automatic aid agreements with all of the surrounding municipalities (Springfield Fire, Whitehouse Fire, Maumee Fire, Richfield Fire, Jerusalem Fire, Oregon Fire, and Toledo Fire) which add approximately an additional 392,450 residents, and 417sq. miles to the response area (US Census). The department operates from four geographically dispersed fire stations, and utilizes a three-platoon system consisting of 20 career personnel assigned to each shift.

Minimum career daily staffing is 16 per the CBA, and our daily staffing is supplemented

by part-time fire fighters (CBA, 2019). The STFD currently utilizes three engines, with one in reserve status, two ladder trucks, two medic units, and three command vehicles. The STFD responded to 5,904 incidents in 2018 (EMS: 4,281 FIRE: 1623), and has seen an increase in call volume each year (Sylvania Township, 2019) [Appendix A FIG. 1].

Funding for the Sylvania Township Fire Department primarily comes from levied monies, and the department operating budget is currently \$9.8 million annually. The Fire Administration consists of the Fire Chief, two Deputy Fire Chiefs, a Captain in charge of training and safety, and an Administrative assistant (Appendix A FIG 2). All career personnel, except for Chief officers and the Administrative Assistant, are represented by the International Association of Fire Fighters Local 2243. The part-time members are not currently represented by a union.

The mission of the Sylvania Township Fire Department is to “to prevent or minimize the loss of life and property damage from fire to our citizens and visitors; to provide high-quality emergency medical services; to mitigate the consequences of natural and man-made disasters; and to provide non-emergency support services within our realm of expertise through highly skilled, trained and dedicated personnel. We will accomplish this mission through fire suppression, emergency medical response, care and transport, rescue, code enforcement, public education, fire investigation, and professional development training.

Our fire fighters:

- May risk their lives to save a life.
- May put themselves at moderate risk to save property.
- Will risk nothing to save life or property that is already lost or destroyed. (Sylvania Township 2019).

**Brief History of the Sylvania Township Fire Department**

The Sylvania Township Fire Department was officially established as an all-volunteer department operating with a horse-drawn cart in 1903. The first fire station, located on Monroe Street in the Village of Sylvania, was built in 1931, and the second station, located on Central Avenue, opened in 1951. The first ten full-time firefighters were hired and placed on shift to provide protection from the two stations in January 1973. At that time, the number of volunteer firefighters were in the 50's for a total force of around 60+ firefighters. Since 1973, the fire department has expanded its full-time personnel while maintaining its volunteer program, although the volunteer numbers have decreased as a percentage of the total line personnel (Sylvania Area Fire/EMS Advisory Board Interim Report (February 17, 2006). The third fire station, located on Monroe and Wilford, was converted from a gas station to a fire station in 1978. In 2002, a fourth fire station, located on Sylvania Avenue near Centennial, was converted from a concrete equipment storage facility, into a fire station in order to meet the needs of a growing community.

In 2008, a capital improvements tax levy was passed by the citizens of Sylvania which allowed all four stations to be either replaced, or renovated. The levy allowed Station #1 to be replaced at the original location in 2013. Station #2 was replaced in 2011, and is now located at 3006 N. McCord Rd. Station #3 was replaced, and work was completed in July 2010. The station is now located at 5056 Haddon Rd. Station #4 was renovated, the work was completed in 2009, and this station now houses the fire administration offices (Sylvania Township, 2019).

The STFD volunteer membership began to experience a decline in membership, a poor attendance rate at weekly drills, and demonstrated an inconsistent emergency response thru 2007. According to the 2007 Advisory Board report, "Truck 1 manning levels for emergency

response is dependent on volunteer personnel participation. In 28 percent of the full alarm assignments already in 2007, there has been no volunteer response.” Sylvania Area Fire/EMS Advisory Board report (Feb 17, 2006)

The 2006 IAFF GIS study noted that” The decrease in shift man power has a negative impact on the daily operations of the department by placing additional work load burdens on the remaining career firefighter/paramedics until new part-time firefighter is hired, oriented, equipped, and trained. This also creates a significant problem with scheduling, which leads to increased dysfunction, and a decrease in the department’s ability to provide quality services. Staffing and deployment deficiencies in the Sylvania Township Fire Department contribute to response inadequacies.” (IAFF GIS, 2006)

As a result of continued inconsistent volunteer response to emergency incidents, the Sylvania Township Fire Department administration made the decision to eliminate the volunteer program, and the administration instituted a part-time program in 2007 (Sylvania Township, 2019). This decision was made in order to increase staffing to supplement a growing career force struggling to meet the demands of a growing community, and continued increased call volume.

The STFD is authorized by the Sylvania Township Board of Trustees, to have a total of ten part-time firefighters on the roster, with two part-time firefighters per day (Ramm, 2019). At the program’s zenith, the department employed 10 part-time firefighters, but due to both promotions to career status and resignations, the part-time membership has fluctuated, and 10 part-time firefighters have never been able to be sustained (Sylvania Township, 2019). Part-time firefighters at the STFD are currently utilized to staff front line apparatus riding positions, and supplement the career firefighter workforce (Ramm, 2019).

During the past ten years, the STFD has suffered an increase in turnover of part-time firefighters that stay for less than two years with our organization. This burden has led to an evaluation of the part-time program spanning the years 2009 through 2019. The evaluation showed that 34 part-time firefighters have been employed during that time, and it further revealed that 15 of the 34 part-time firefighters (44.1%) have since voluntarily resigned from their position with the department. The evaluation also noted that 16 of the 34 part-time firefighters (47.1%) have since been promoted to full-time status, and only 3 of the 34 (8.8%) are currently employed as part-time firefighters (Sylvania Township, 2019). This data is in line with the Clearcreek Fire District that experienced a 46.15% resignation of part-time staff within two years of joining the organization during a thirteen-year period of time (Vecchi 2014).

This turnover has led to negative effects within the department. These negative effects that have been the most severe have involved the areas of departmental finance, training, operations, and scheduling.

The financial burden from this difficulty has been felt from the reoccurring costs of hiring, orienting, equipping, and training new part-time firefighters. Although each applicant pays for both the written and physical agility exams, which are done thru both the National Testing Network, and The Firefighter Mile respectively, the department incurs \$ 5,624.00 in direct costs from each part-time firefighter hired from background checks, medical physical exam, duty uniforms, and individually sized personal protective equipment (Sylvania Township, 2019). These costs are a one-time investment which cannot be recouped in the event the individual resigns. The total hourly cost of a new part-time firefighter is \$17.15, of which this is broken down as follows: starting wage of \$15.95/hr., Social Security income tax \$0.99/hr., and Workman's Compensation \$0.21/hr. (Sylvania Township 2019). Based on these data figures, the

department has paid an average of \$18,177.80 (background, med. physical, uniforms, PPE, and wages) for each resigned part-time firefighter for a total of roughly \$272,667.00 (Sylvania Township, 2019).

Data was compiled to compare and contrast the part-time firefighters that have both resigned, and those that have been promoted to full-time status. Comparative data featuring average time on the department, hours worked, and number of emergency responses were compiled and analyzed.

The data revealed that of those firefighters that resigned, they stayed with the department for an average of 1.19 years. If the two extremes are removed (R-1, and R-5), the average lowers to 0.99 years. In comparison, those part-time firefighters that were promoted to full-time status were in the part-time ranks for an average of 1.34 years. If the extremes of this group are removed (P-1, and P-9), the average falls to 1.30 years. The data reveals that neither group has an average length of stay in the part-time ranks of longer than 1.34 years (Appendix A FIG. 3, 4). According to the STFD Fire Chief, Michael J. Ramm, the return on investment from these resigned part-time firefighters that stay for less than two years are low (Ramm, M., 2019).

A total hour worked comparison was also considered. Those that resigned, on average, worked a total of 732.08 hours. When the extremes of this group are removed (R-2, and R-15), the average hours worked dropped to 635.49 hours. Those that were promoted to full-time status averaged working 1,087.54 hours before the promotions. With the extremes of this group removed, (P-4, and P-9), the average falls to 1,045.87 hours (Appendix A FIG. 5,6). A point of note is that both groups completed the in-house recruit training program. This program lasts a minimum of 368 hours. The data revealed that, on average, those in the

resigned group worked less than 364 hours following the recruit training program, and those in the promoted group, worked only 719 hours. These are the effective hours that a part-time firefighter can be counted as supplemental staffing (Sylvania Township, 2019).

Finally, comparative data was taken for number of emergency responses (fire and EMS) for each group. Data revealed that those in the resigned group responded to an average of 113 emergency responses, and when the extremes from this group are removed (R-4, and R-10), the responses fall to 102.46. In comparison, those in the promoted group, on average, responded to 205.43 emergency responses. When the extremes (P-2, and P-8), were removed, the average dropped to 196.85 emergency responses (Appendix A FIG. 7,8).

This difficulty has also had negative effects within the STFD training program. Fire training for the STFD is led by a Captain who is in charge of training and safety. He is assisted by the station officers that are also certified fire instructors. The STFD trains to NFPA, ISO, and State of Ohio standards (Sylvania Township, 2019). The STFD Recruit Training Program, which is also led by the Training Captain, spans a total of 368 hours, and is a combination of a 40-hour administrative work schedule, and 24-hour platoon schedule (Sylvania Township, 2019). Each part-time firefighter is formally evaluated after each shift, and is informed by his/her officer about areas that they are performing well, and areas that there is need for improvement. The recruit has the opportunity at the end of the recruit training program to evaluate the program itself, and provide feedback in order to improve the program. The program has been changed to reflect the feedback from the recruits.

As a result of the “revolving door” of part-time firefighters, training at the STFD has experienced a lack of higher-level training for more senior firefighters due to the constant need of basic level training from the “revolving door” of new part-time firefighters. 46% of the part-

time firefighters that resigned did so prior to the completion on the Recruit Training Program (Sylvania Township, 2019). Many of the part-time firefighters even received poor evaluations during the recruit training program, which extended the time spent in the training program. The poor evaluations during the Recruit Training Program has further contributed to lower level training for the senior crewmembers, and increased overtime costs to the department due to part-time recruits that are not yet cleared to function as a third member of a suppression crew. NFPA 1500 5.1.4 states that the fire department shall restrict the activities of new members during emergency operations until the member has demonstrated the skills and abilities to complete the tasks expected (NFPA 1500).

From an operational standpoint, the decrease in available shift personnel adversely effects the number of available trained firefighters on a fireground. This decrease in personnel on an emergency scene lowers the efficiency of life-saving tasks that need to be quickly completed by as much as 13.4% (IAFF GIS 2006).

The shift officer in charge of scheduling notes continued time spent away from his crew due to the increased scheduling dysfunction that this problem has caused. Lt. Standiford is the officer in charge of the scheduling of part-time firefighters. He states that he typically spends “at least three hours per pay period away from his crew” in an attempt to manage the schedule. The “revolving door” of part-time employees, coupled with scheduling the employees at different stages of the recruit training process, while accounting for delays in skill development during the process have all helped contribute to the dysfunction.

The STFD does not currently have a formal strategy in place to proactively improve the retention of part-time firefighters. The STFD has only recently begun the practice of exit interviews, but there have not been any part-time firefighters that have participated in this

interview process. Development of a formal retention strategy could possibly improve part-time firefighter retention at the STFD.

**Significance**

The significance that this study could have on the STFD is the potential development of retention strategies for the retention of part-time firefighters. These future strategies could potentially result in significant future cost savings, improved training, and decreased operational dysfunction for the STFD through the retention of part-time firefighters.

## Literature Review

The literature review for this research study was accomplished by first reading the contributions of other fire service professionals available through the Ohio Fire Executive Program archive of applied research projects, as well as those made available through the Executive Fire Officer Program database at the National Fire Academy. A review of both public and private sector literature which focused on part-time employment and employee retention was then conducted through The University of Toledo Library in Toledo, Ohio as well as the Toledo-Lucas County Public Library. A focused internet search was also conducted to identify and review credible sources of information. Data pertaining to the Sylvania Township Fire Department was provided by the Administrative office of the Sylvania Township Fire Department (STFD).

The subject of part-time firefighter retention has been an issue of great concern for fire departments in virtually every community across the country. The State of Ohio has its own fair share of fire departments that are experiencing part-time firefighter retention problems, and the STFD is no exception.

The literature is clear that organizations in both private and public sectors are experiencing part-time employee retention problems. Organizational leaders have the responsibility of addressing employee retention issues (George, 2015). An assessment team from the Ohio Fire Chief's Association affirmed that both part-time turnover and a limited pool of part-time applicants are problems currently being experienced throughout the State of Ohio [OFCA] (2016). Kossivi, Xu, & Kalgora (2016) believes that the employees are the most valuable asset

to an organization, and that their significance to the organization demands the need to not only attract the best talent, but to also retain them for a long-term.

The FLSA does not define full-time employment or part-time employment. This is a matter generally to be determined by the employer (US Dept. of Labor FLSA 2016). According to Johanson & Cho (2009), there is no universal definition of a part-time employee, however, for their report, a part-time worker is an individual who works less than 35 hours a week. The Ohio Revised Code states that a “part-time township employee” means a township employee who is hired with the expectation that the employee will work not more than one 1500 hours in any year (ORC, 2015). For the purpose of this study, a part-time firefighter is one who works less than 1500 hours in any year, in accordance with the ORC.

There are dramatic differences between full-time and part-time employees with regard to wages and benefits. Inman & Enz (1995) finds that most part-time employees receive lower wages than their full-time colleagues, and that they do not receive benefits even though the benefits and incentives may reduce part-time employee turnover rates. Access to paid sick leave mirrors other economic inequalities, as part-time and low wage workers are far less likely to have paid leave than full-time or higher-income workers (Bureau of Labor Statistics 2014).

Fire Departments utilize part-time employees for various reasons. Rindler, Kennedy, and Meckstroth (2010) concluded that part-time employees provide the employer with several advantages:

- Lower hourly wage- The average hourly wage is lower for a part-time employee
- Lower benefits cost- part-time employees typically do not receive health or life insurance.
- Lower retirement contribution- Pension vs Social Security- Part-time employees do not receive a pension benefit.

- Lower costs for minimum staffing coverage- If personnel drop below minimum staffing levels, the vacancy could be filled with a part-time employee.
- Part-time members are not represented by the IAFF- Union firefighters receive additional employee benefits such as accrued time off, sick/vacation/funeral/personal leave, pay rates/step increases.
- Cross seeding of ideas-Part-time staff typically work for multiple agencies and can share learned techniques.

In 2016, 27.7 million people usually worked part-time (that is, they worked less than 35 hours a week). Part-time workers are categorized by the reason they work part-time-economic or noneconomic. Most analysis of part-time work concentrates on people working part-time for economic reasons-often called “involuntary part-time workers”-because of the cyclical nature of this type of part time work and the associated policy implications. Involuntary part-time workers want full-time work, but work part-time because of slack business conditions or because they only found part-time jobs. Less than one-fifth of part-time workers (4.7 million) belonged in this category of part-time employment in 2016, or about 3.1 percent of all workers. In contrast, slightly more than three quarters of part-time workers (21.4 million) worked part-time for noneconomic reasons in 2016, accounting for about 14.1 percent of total employment. These workers are often called “voluntary” part-time workers because they either do not want to work 35 or more hours a week or are not available to do so (Labor, 2018).

In an interview with STFD Fire Chief Michael J Ramm, he states that “every STFD part-time firefighter desires full-time, career employment with the STFD.” This admission

places each STFD part-time firefighter into the involuntary part-time employee category (Ramm 2019).

In his OFE research project, Gardner (2008), he suggests that fire departments must begin to understand the needs and wants of the part-time firefighter/paramedic in order to develop strategies to reduce their voluntary resignation.

Broman (2000) conducted research in southwest Ohio regarding part-time staffing issues. He noticed that part-time employees generally migrate to whatever employer offers the highest wages and best working conditions at any given time, and cited “bidding wars” between fire departments that use part-time employees. His work discovered that in order for a part-time firefighter to prepare for a full-time position, provide for their family, and maintain an appropriate work/life balance, they often will work at multiple fire departments, with some working as many as 120 hours a week.

In a study of the Clearcreek Fire District, Vecchi (2014) notes that the Clearcreek Fire District experienced a 46.15% resignation of part-time staff within two years of joining their organization during a thirteen-year period of time. In Hosford’s study (2006), he claims that within a three-year period, it was expected that the members of Kettering FD should obtain the necessary skills to be effectively trained to function on the street.

In research conducted by Rindler, Kennedy, and Meckstroth (2010), they found that in order to be attractive to potential employees, certain incentives may be beneficial. Incentives such as attendance bonuses, incentive pay for weekends/holidays/nights, being offered retirement plan choices, health, life or disability insurance, and tuition reimbursement benefits have all been attempted. The employer can also allow a representative from the part-time staff to have a voice in matters of negotiations, policy, or

discipline. They, however, point out that these incentive measures may create animosity between part-time and full-time members, or become a bargaining issue during union contract negotiations. They also admit that the incentives will potentially negate the cost savings gap for the employer.

Wagner, (2009) cited that the City of Fairfield provided benefits that included bonus pay, holiday pay, tuition reimbursement, sick leave, employee cookouts, and free golf on city operated courses. However, these incentives did not have a significant impact on the rate of employee attrition. His research noted that the primary reason for employee turnover was the desire for full-time employment with associated benefits (72.4%) or the need for discounted health care benefits (53.3%). He recommended additional screening for applicants to determine long term compatibility with the organization, expanding the roles and scope of utilization for part-time personnel, and a realignment of incentives toward employee wishes. However, he found it unlikely that any realistic incentive would make an impact when the employees are primarily motivated by a desire for full-time employment with the associated benefits.

Hickey (2011) completed a study of the Champion Township Fire Department which revealed that pay and benefits were only minor reasons for turnover. He cited the limited opportunities for promotion, and lack of ownership and involvement were the main reasons that their personnel resigned. In contrast, Kavetski, (2016) believes that the employees' decision to leave an organization could be decided on compensation.

Rindler, Kennedy, and Meckstroth (2010) noted that workload, flexibility, and opportunities for full-time employment were the main issues with part-time staff satisfaction, even above pay and benefits. They found that retention could be a serious

problem if the opportunity for a full-time employment didn't exist, the call volume was too high, or the department schedule was inflexible. Those authors also revealed that the part-time pool continues to dry up. As it does, recruiting and retention efforts result in competitive hiring, increasing wages and offering incentives. These practices offset savings part-time staff brings to the department. Gardner (2008) sheds light on the fact that despite the financial burden and time constraint that hiring new personnel places on fire departments, they are doing very little to address the problem of retention.

J. Beam (2008) suggests that a company take a deep interest in their employee turnover rate, because it is a costly part of doing business. Rindler, Kennedy, & Meckstroth, (2010) noted in their study of part-time firefighters in the Piqua Fire Department, that there are three types of costs associated with maintaining a part-time firefighter program. The costs include direct costs which are associated with and directly attribute to a specific employee. Indirect costs, which are not directly attributable to one specific employee, but are very real and measurable. An example of an indirect cost is the expense of developing, maintaining, and securing written test material that is both valid and reliable. The third cost is opportunity cost. Opportunity cost is where staff members must focus time and energy toward the maintenance of part-time staffing levels thus forfeiting the opportunity to advance other important objectives.

According to Cunningham (2006), "workers between the ages of 25 to 34 have a median tenure of only 2.9 years." Cunningham (2006) suggests hiring more seasoned firefighter/paramedics can help reduce turnover. In a more recent study by Rindler, Kennedy, Meckstroth, (2010) they found that a revolving door of part-time employees can interrupt work flow, and inhibit effective teamwork. The shift and company are limited in

their ability to form as a team because members are constantly falling away and being replaced. They state that in their region, the average length of service for part-time personnel was calculated to be between two and three years. Limited continuity was cited as the most significant problem in their study.

The literature also suggests that cost-benefit theory, human capital theory, and social capital theory are also cost components to organizations. (Dalton & Todor, 1979; Lamminaki, &McManus, 2014; Hancock et al., 2013; Levy, Joy, Ellis, Jablonski, & Karclitz, 2012; Park &Shaw, 2013) Cost-benefit theories assert organizational performance diminishes as an organization incurs costs resulting from turnover. (George, 2015; Jiang, Lepak, Hu, & Baer, 2012a; Mohr, Young, & Burgess, 2012; Shaw, Park, &Kim, 2013) Human capital theory addresses the loss of institutional knowledge when employees exit. Finally, social capital theory relates to how social relationships that shape the organization undergo challenges when certain individuals depart (Ellinger et al., 2013; George, 2015; Mohr et al., 2012; Sorenson & Rogan, 2014).

In public organizations, taxpayers assume the burden of the costs. Decreasing employee turnover would likely lead to significant cost savings for organizations, as hiring new workers involve training and orientation expenses (Cho & Lewis, 2012).

Citizens pay for protection of life and property through tax dollars, and they assume that the elected and appointed officials will make informed decisions regarding that protection. Too often, however, that decision making progress has been based solely on budgetary expedience. Irrespective of the resources provided; citizens continue to believe that fire fighters are prepared to provide an aggressive interior assault on fires, successfully accomplishing victim rescue, fire control, and property conservation. They do not expect

firefighters to take defensive actions- to simply surround a fire and “drown it”- because to do so would be to concede preventable loss of both life and property. When staffing falls below minimum acceptable levels, so does service; at this point, the goals and expectations set by the community are essentially abandoned. The staffing and development deficiencies that prevail in the Sylvania Township Fire Department are illustrative of this condition (IAFF 2006).

According to the Office of the Independent Budget Analyst Report (2008) concluded that using overtime to fill open shifts was cheaper than hiring additional personnel. The report found the City of San Diego California saved approximately three million dollars filling open shifts with overtime versus hiring additional personnel. Rielage (2016) believes that “relying on overtime rather than adding staff is a penny-wise, pound foolish proposition.” He claims that there is a greater price that is being paid by having firefighters work excessive amounts of overtime. He cites increased stress at home leading to divorce, and fatigue of the employee, leading to errors in judgement. He points out, that to combat these issues, it is key to have a balance in work and home life.

The literature addresses various potential causes for firefighter turnover. Gardner (2008) identifies potential causes including wages, inadequate or substandard equipment, limited advancement opportunities, and proximity of the work location to home. His research concluded that the turnover was due to employees seeking to work closer to their home, or at a higher wage than their previous work environment. He states that the only successful method offered to combat this employee turnover issue was an effective mentoring program, but still the effects of that intervention were limited, and that environmental factors affecting each individual department must be given consideration.

Finnegan (2010) believes that retention happens when employees receive things that they value that they cannot get anywhere else, and these things create reasons for them to stay. Phillips and Edwards (2008) found external factors such as economic growth, shortage of special skills, and slower growth of job seekers hinders employee retention. Internal factors that have a tremendous impact on retention include lack of company loyalty, desire for all types of benefits, desire for competitive compensation, and the need for work/life balance. Todd & Binns (2013) adds that the work-life balance in particular has become a major factor determining employee satisfaction levels.

Yeh (2014) claims that the term job satisfaction may encompass all aspects of the job such as duties assigned, who is in charge, and the working conditions. He identified multiple other factors employees take into consideration when evaluating how satisfied they are including rewards received, sense of fulfillment, workplace climate, among others. Kim, S., & Park, S. M. (2014) adds that turnover correlates with job satisfaction issues, and employees with low job satisfaction are likely to state turnover intentions. (Maertz & Campion, 1998) suggests that attitudes about one's current job and the availability of alternatives are seen as the antecedents for voluntary turnover.

In the OFE research study completed by Vecchi (2014), he claims that many part-time firefighters have a very specific focus in mind, and that is the attainment of their professional goal to become a full-time firefighter. The factors that influence their satisfaction at work have less to do with the incentives offered to them, and have more to do with the likelihood that they will reach their ultimate goal with their current employer.

Public sector managers have a direct influence on employee retention (Grissom, 2012). In the workplace, interpersonal trust directly influences how employees feel

satisfied with their job (Guinot, Chiva, & Roca-Puig 2014). A strong correlation exists between employees' personal trust with supervisors and turnover intentions (Kim, S., & Park, S. M. 2014). A lack of trust leads to less productivity and effort, and an increase in turnover (Brower, Lester, & Korsgaard 2017).

Hamstra, Sassenberg, Van Yperen, and Wisse (2014) discovered that the leadership style a leader exhibits may influence how valued an employee feels; one employee may appreciate a transformational leadership style, while another prefers a transactional leadership style, for example. Barrick, Thurgood, and Courtright (2015) believe that the leader must build a relationship in which employees can see how their values align with the values of the organization. Those authors were able to show connections between employees feeling valued and their level of engagement with the organization.

Finnegan (2010) believes that effective supervision plus good employee programs equal high retention, but poor supervision will trump good programs. However, Tuzun & Kalemci (2012) suggest that the extent to which employees believe they have supervisory support may dictate likelihood to turnover.

Employee commitment and retention are not determined by a single issue, but by a cluster of factors Kossivi, Xu, & Kalgora (2016). Organizational commitment relates to how loyal employees are to organizations. The term organizational commitment refers to how strongly employees identify with a workplace, get involved in activities on the job, and stay rather than exit the organization (Salleh, M., Amin, A., Muda, S., & Abi Sofian Abdul Halim, M., 2013). Organizational commitment is of critical importance to organizations because replacing an employee is costly; productivity also diminishes while positions remain unfilled (Cho & Lewis 2012).

The fairness of workplace procedures affects directly employees' commitment to remain with an organization (Cho & Sai 2012). Employees commit to organizations when leaders use fair decision-making strategies (Bianchi, E. C., & Brockner, J. 2012). By valuing and treating employees fairly, leaders may influence retention rates in an organization (Cho & Lewis 2012).

According to Span (2013), Training and Development also play a major role in retention. He states that it's important to provide coaching, educational opportunities, and training programs. By helping individuals plan their desired part within an organization, setting concrete goals, and providing support to help them achieve those goals, engagement and retention increases. Vecchi (2014) adds that in his study, the majority of their part-time staff was dissatisfied in two categories: schedule flexibility, and external training.

The literature suggests that a cultural/generational component exists, and may contribute to turnover. Graylyn Stargill (2016) states that "culture eats strategy for breakfast" which implies that the best strategies can be easily defeated if the culture of a group or organization is not taken into consideration.

Although experts' express differences as to who falls within these different categories, generally the Traditionalists were born prior to 1946, the Baby Boomers were born between 1946 and 1964, Generation X-ers were born between 1965 and 1977, and Generation Y-ers were born between 1978 and 1989.

### **Traditionalists**

The Traditionalists lived through World War II, and appreciate security. Traditionalists typically have historical knowledge of their business industry and company and tend to be loyal

to their company. Traditionalists are known for positive traits such as: stability, attention to detail, thoroughness, locality, and hard work. Less flattering characteristics include dislike of ambiguity and change, reluctance to buck the system, being uncomfortable with conflict, and reticent when they disagree (Zemke, Raines, and Filipczak, 2000).

### **Baby Boomers**

The Baby Boomers are known for being hard workers and making the necessary sacrifices. Baby Boomers are very busy growing their organizations and their own individual careers. They are often viewed (especially by Generation Y-ers) as primarily focused on money with “lip service” paid to family/work/life balance. Many Baby Boomers are “empty nesters” and have significant discretionary income, while others are struggling to simultaneously work, raise children, and assist aging parents. Baby Boomers are positively described as service-oriented, driven, willing to “go the extra mile,” good at relationships, eager to please and good team members. However, Baby Boomers are also known to be uncomfortable with conflict, reluctant to go against peers, overly sensitive to feedback, judgmental of those who see things differently, and self-centered (Zemke, Raines, and Filipczak, 2000).

### **Generation X**

Generation X is smaller in number than the Baby Boomer generation and has generally struggled more with the work/life balance issues. This generation is seen as feeling more of a need to actually achieve a work/life balance, which did not seem achievable by the Baby Boomer generation. Generation X-ers tend to be self-sufficient and are technologically literate. Generation X-ers are positively described as adaptable, independent, unintimidated by authority, and creative. This generations’ less attractive qualities include impatience, a lack of people skills, inexperience, and cynicism. (Zemke, Raines, and Filipczak, 2000).

### **Generation Y**

Generation Y, also known as the millennials, is the up-and-coming generation.

Generation Y is expected to very shortly outnumber Generation X and perhaps the Baby Boomer generation in the workforce. This generation prides itself on spending more time with family and less time at work. Generation Y individuals not only understand technology, but are truly experts with respect to using technology. Also, Generation Y-ers are expected to change jobs repeatedly over the course of their careers.

Generation Y is positively known for collective action, optimism, tenacity, and multitasking capabilities. Generation Y is also thought to need supervision and structure and lack experience, especially with respect to handling difficult people. (Zemke, Raines, and Filipczak, 2000).

Generation Y is expected to fill the gap that will be left when the Baby Boomer generation retires. As mentioned above, Generation Y is very large in population (unlike Generation X), Therefore, companies will rely on Generation Y for their futures. Unfortunately, Generation Y is not seen as independent as Generation X, and has a need for supervision and structure. Therefore, since the labor, and ultimately the leadership of Generation Y will be necessary to maintain the workforce, organizations need to focus now on mentoring, and training Generation Y to prepare them with the skills that the business will need in the upcoming decade. (Zemke, Raines, and Filipczak, 2000).

According to Fry (2015), one component of employee turnover in today's workplace is generational. The workplace has become much more demographically diverse. It is not uncommon to find three different generations within the workplace. In his study, Hickey (2011) highlights the differences in motivation that exist between younger employees and the middle-

aged employees within a fire department. Younger firefighters were found to have a strong sense of commitment to family, and less loyalty to their employers when compared to their elders. He suggests that in a traditional fire service culture, it is easy to see how young firefighters coming into the service may find the existing bureaucratic structure to be out of alignment with their preferences.

According to Rigoni & Adkins (2016), Millennials place high importance on growth opportunities and advancement potential. Through their research, they believe in order to reduce turnover associated with this generation, organizations must learn to engage them. They report that 47 percent of “actively disengaged” Millennials indicated a high likelihood of leaving their jobs if better conditions exist elsewhere. Schawbel (2013) believes that the Millennial Generation has learned to be two things during the recession: resilient and nomadic. He goes on to suggest that a work culture that is aligned with an individual Millennial is the leading indicator of retention and longevity.

Stein (2016) offers that companies can be successful in managing Millennials. He believes that in order to do this, organizations should focus on mentoring, work/life balance, understand that Millennials primary motivator is not financial, accelerate feedback intervals, provide a strong organizational culture, provide recognition, and embrace digital technologies. He believes that Millennials place a high value on work that is attractive, allows for transition between work assignments, networking with like-minded people, and a less rigid atmosphere. These characteristics that are so attractive to Millennials abound within the fire service.

According to research published by organizational behavioral experts, Dr. Georgia Chao and Dr. Phil Gardner, young adults today define a “good job” differently than their counterparts of 15 to 20 years ago. Instead of being motivated by traditional incentives such as high income

and working for a prestigious company, today's fledgling workers are primarily looking for interesting work, good benefits, job security, and chances for promotion. They are less apt to stay with a job just because they have one (Chao, G.; Gardner, P. 2008).

Organizational studies typically feature turnover rather than focusing on retention. In order to decrease turnover, leaders may emphasize retention strategies George (2015). Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013) suggests that implementing strategies to reduce turnover costs in public organizations is necessary for proper stewards of the taxpayer dollars spent to fund government operations. Focusing on employee retention may result in decreased costs and improvements in organizational performance.

Rindler, Kennedy, and Meckstroth (2010) offers the idea that hiring full-time staff exclusively from the part-time pool will help motivate part-time employees to do their best, and encourage loyalty since they ultimately are striving for the full-time position. The Sylvania Township Fire Department has routinely promoted personnel from its part-time ranks, but there is currently not a policy in place to exclusively promote from the part-time ranks (Ramm 2019). The Champion Township Fire Department plans to develop a strategy for career growth and retention incentives along with other opportunities Hickey (2011).

Mitchell, T. R., Holtom B, C, Lee T. W. (2001), believe that the first steps in developing a retention plan are largely strategic:

**Determine whether turnover is a problem.** How many people are leaving? Who is leaving? Do we want these people to leave? What does it cost to replace them?

**Determine why people are leaving.** Conduct exit interviews. Consider having outside consultants perform the exit interviews one to three months after departure to ensure that the

reasons provided are not defensive or protecting those left behind. Having the HR department or an outsider conduct the interview also helps the leaver to not fear retribution.

**Investigate reasons why people stay.** Conduct focus groups with existing employees. Determine the factors that keep them in their jobs.

**Develop top-level support for the plan.** The organization needs to be willing to devote financial and human resources to the planning, development, execution, and maintenance of any plan.

**Identify the targets of the plan.** Is it for only a few? Is everyone involved? If everyone is part of the program, that means that the initial selection of employees into the company is critical, because from that point on the company will attempt to retain almost every employee.

**Draw on conventional wisdom.** Once these strategic parameters are set, organizations should continue to pay close attention to basic management practices advocated by the traditional turnover literature.

**Routinely assess job satisfaction and organizational commitment.** Make the gathering and public feedback of these data part of the organizational culture.

**Be prepared to make changes based on these findings.** Have resources and strategies at the ready. Gathering data without action causes cynicism and anger.

**Focus on topics like supervision, pay, the work environment, and company values.** These are the more traditional factors that human resources personnel are trained to deal with (Mitchell, T. R., Holtom B, C, Lee T. W. 2001).

Taylor & Stern (2009) found one of the most effective ways to stem employee departure is to encourage your staff to fall in love with the company in four steps:

1. Reward people fairly and in line with the marketplace.

2. Treat staff well; focus on recognizing every employee's contributions.
3. Train employees and improve skills on their current job.
4. Develop your most talented employees whom you think have leadership potential.

Researchers' collective effort to predict turnover has not been very successful. Even the more complex theories, with multiple attitudes and assessments of perceived alternatives, leave about 75 percent of the variance in turnover unexplained (Griffeth, Hom, & Gaertner, 2000). However, Gregory (2006) believes that if the person doing the exit interview digs a little deeper, other factor will emerge. Once you have the then ask why that is important to them because if it's important to them, most likely it's important to others as well. He does concede that "even if everything is done correctly, you will still loose people."

In summary, the findings and observations from the literature greatly influenced this project. The Literature review was able to identify the problem of part-time turnover in both the private and public sectors, noted possible reasons for increased turnover, revealed probable negative effects of this continued problem, and provided possible strategies for future retention. The provided literature and data should encourage the STFD administration, and other employers to take an introspective look into their organization. If the damaging trends of employee turnover are evident, the STFD, and other employers are encouraged to make appropriate changes in order to reduce turnover, and carry out the mission and values of their respective organizations.

## Procedures

In the beginning of this research project, initial data was collected by reading the contributions of other fire service professionals available through the Ohio Fire Executive Program archive of applied research projects, as well as those made available through the Executive Fire Officer Program database at the National Fire Academy. This author then conducted a review of both public and private sector literature which focused on part-time employment and employee retention. A Boolean search was then conducted through both The University of Toledo Library in Toledo, Ohio as well as the Toledo-Lucas County Public Library. A focused internet search was also conducted by the author to identify and review credible sources of information. Data pertaining to the Sylvania Township Fire Department was provided by the Administrative office of the Sylvania Township Fire Department.

This author developed four research questions to further focus the study. In order to appropriately answer the four research questions, additional data for this study was collected through the use of both an internal (Appendix B) and external (Appendix C) survey. Results from both the internal survey (Appendix D), and external survey (Appendix E) were organized, analyzed, and documented to create recommendations designed to potentially improve part-time firefighter retention within the STFD.

The internal survey was created to answer the questions: 1. *What does the STFD do to retain part-time firefighters?* 2. *What are the factors that contribute to the loss of part-time firefighters at the STFD?* These questions were focused on identifying both factors that may positively affect retention, as well as factors that may reveal potential causes of voluntary resignation. The survey consisted of 10 questions, and it was offered to all current and former part-time STFD firefighters. This sample group was chosen to identify retention factors within

the STFD. All 34 current and former part-time firefighters were contacted, and 23 of those surveyed participated in the survey, yielding a 67.6% participation rate. The survey questions were created, and the responses were measured using the Nominal, Ordinal, Interval, and Ratio Scales. The survey responses were collected, analyzed, and then further separated into two sub categories: Current and resigned, and promoted groups. The purpose of separating the two groups were to identify any potential correlations/trends between the two groups. In order to improve truthfulness of response, each survey participant was able to remain anonymous. The STFD has recently started an exit interview process, but due to the newness of this process, no data from part-time firefighters was available through exit interviews.

The external survey was sent to 24 combination fire departments in both Lucas and its adjoining counties in Northwest Ohio that employ part-time firefighters. This sample group was selected in order to identify retention trends in combination departments within the Northwest Ohio region. The list of the fire departments was provided by the Ohio Fire Chief's Association (Appendix F). This survey was created to provide data with the intention of answering the question: *What do some other fire departments similar to STFD do that might affect the retention of part-time firefighters?*

This survey consisted of 10 questions, and of the 24 departments surveyed, 12 departments participated in the survey for a 50% participation rate. These survey questions were created, and the responses were also measured using the Nominal, Ordinal, Interval, and Ratio Scales. Each department was also granted the opportunity to remain anonymous.

Finally, data was compiled from question #3 from the external survey, as well as from the Administrative office of the STFD to answer the question: *What are some of the most significant costs associated with employing part-time firefighters?* The data collected from the

Administrative office of the STFD was used to identify the direct, indirect, and opportunity costs associated with part-time firefighters at the STFD. The data from both surveys and the STFD Administrative office was able to be collected, and analyzed to answer the four research questions. The research data from this study will assist the author in making recommendations on how to potentially improve part-time firefighter retention at the STFD.

### **Definition of Terms**

**Combination department-** A fire department that utilizes both part-time and full time firefighters for staffing.

**Direct Cost-** Cost that can be associated directly to a particular object. Direct costs are measured in dollars.

**Full-time Employee.** An employee working at least 40 hours per week on average and eligible for full benefits.

**Indirect Cost-** Cost that cannot be directly attributed to a particular object. Indirect costs are measured in dollars.

**Opportunity Cost-** The value of the best opportunity not chosen in a situation where the individual is constrained by limited resources and must select between at least two mutually exclusive alternatives. Opportunity costs are measured in hours.

**Part-time township employee-** means a township employee who is hired with the expectation that the employee will work not more than one 1500 hours in any year (Ohio Revised Code 505.60 (G) (I))

**Turnover-** The rate at which an employer loses and subsequently replaces employees.

**Voluntary resignation.** The choice of an employee to resign their position absent duress (i.e.

anticipated, pending, or ongoing discipline; resignation in lieu of termination)

### **Limitations of the Study**

Researchers identify limitations in studies to identify potential weaknesses, as doing so may prevent unintentional generalization of the results (Wolcott,2009). Three limitations were identified by the author in this research project.

First, personal bias may influence the answers given to the survey questions. The extent to which personal bias remains absent from the research influences the perceived credibility of the data (Tuohy, Cooney, Dowling, Murphy, & Sixmith,2013).

A second limitation is that not all of those surveyed participated. Lack of full participation in the surveys reduces the amount of total data available to be collected and analyzed. This limitation may inadvertently affect the results of the project.

A final limitation is that the diversity of the fire departments surveyed may affect answers given during the survey. Although all departments surveyed were combination departments, each range from predominately volunteer with part-time firefighters to predominately career with part-time firefighters. This diversity may possibly also affect the answers given in the surveys, which may affect the results of the project.

## Results

The purpose of this study was to identify research-based information that will help improve part-time firefighter retention within the Sylvania Township Fire Department. To accomplish this, a descriptive research methodology was used to gather data which was collected and analyzed to answer the four proposed research questions. A literature review, an internal and external survey, as well as data from the Sylvania Township Fire Department office was used as the sources of data collection.

### **Research Question 1- What does the STFD do to retain part-time firefighters?**

To answer Question one, an internal survey was offered to all current and former part-time firefighters at the Sylvania Township Fire Department. Internal Survey Questions (ISQ) #1,2,4,6, and 8 were created to answer this question.

The participants were first asked How well did/do you feel that the STFD meets your individual needs. Of those that responded, 26.09 % chose Completely agrees, 47.83 % Somewhat agrees, 21.74 % Neutral, 4.35 % Somewhat disagrees, and 0% Completely disagrees (Appendix D Fig.1).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. Data between the two groups ranged from completely agree to neutral with only one member choosing somewhat disagree, and neither group selecting disagree (Appendix D Fig 2&3).

The participants were then asked if their Recruit Training Program experience as a part-

time firefighter for the STFD was positive. The participants picked Completely agrees 21.74 % of the time, 34.78 % Somewhat agrees, 21.74 % Neutral, 21.74 % Somewhat disagrees, and 0% Completely disagrees (Appendix D Fig.4).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. Data revealed that the responses in the current and resigned group were fairly equally dispersed from completely agree and somewhat agree, with no selection made for disagree. Those in the promoted group predominately picked completely agree, mixed response between somewhat agree to somewhat disagree, and no selection made for disagree (Appendix D Fig 5&6).

Sixteen explanations from the participants to this question are provided as follows:

1. Recruitment training hit all the key areas of fire and EMS operations. It did feel at times there was not gauging of what the part-time firefighter knew. Expectations were clearly defined. (Resigned PT firefighter)
2. The RTP itself was pretty basic. Would have liked more of an academy style. Trying to learn from a good amount of the crews proved to be rather difficult as the part time program was mostly frowned upon by full timers. Didn't feel it was much of a teaching environment. I had asked a lieutenant questions multiple times on multiple occasions and been completely ignored. (Current PT firefighter)
3. The training captain was arrogant. (Promoted PT firefighter)
4. I would not say it was a positive experience. It was attempted to be a thorough training

academy but we were all treated poorly by other firefighters helping out on those days as there is always animosity between part time and full-time firefighters. (Resigned PT firefighter)

5. Overall, very positive, I just wish there was more uniformity or consistency. (Current PT firefighter)

6. For the most part it was a positive experience. I felt the recruit school did not adequately prepare me. (Promoted PT firefighter)

7. Part-timers missed out on training opportunity if they were working at their other jobs from 7am to 7 pm. Also, a very large number of full-time guys didn't want us there at all because of politics with the volunteer's guys there were there before the part time started. (Resigned PT firefighter)

8. Still some topics that were not covered. (Promoted PT firefighter)

9. Training officer was not into training. He was into look how much I know and you don't. (Promoted PT firefighter)

10. Some crews made it fun and wanted to train with part timers others did not. (Resigned PT firefighter)

11. Could use a longer initial training. (Promoted PT firefighter)

12. Most of the training was in the field after the academy. (Promoted PT firefighter)

13. Was a good intro to the department. (Promoted PT firefighter)

14. The part time program prepared me for most of the knowledge need for when I was

promoted to full time. (Promoted PT firefighter)

15. Well organized, members always willing to train and teach you. Training was relevant to job and daily duties. High quality training. (Resigned PT firefighter)

16. Initial training was great, shift training not consistent. (Resigned PT firefighter)

The participants were also asked to rank all the factors that would positively affect your part-time employment with the STFD (rank in order with 1 being the primary factor). Of those that responded, 60.87 % selected opportunities for full-time status as their most influential motivator followed by Wages and benefit package (13.04 %), Quality Leadership/Administration (9.09 %), Flexibility of schedule (9.09 %), and Quality of equipment (4.55%) [Appendix D Fig.10].

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The data revealed that although full-time opportunities were the main factor for the current and resigned group, they were more diverse in their response. The promoted group was much less diverse in the response, and predominately selected Full-time status (Appendix D Fig. 11&12).

The respondents were asked if they feel like the work culture of the STFD is aligned with them. Completely agree was chosen 47.83 % of the time, 30.43 % Somewhat agree, 8.70 % Neutral, 8.70 % Somewhat disagree, and 4.35 % Completely disagree (Appendix D Fig. 16).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The current and resigned

group was very diverse in their response, and all selections were chosen in this group. The promoted group was less diverse in their selection. Completely agree was the predominate choice, and no selections were made in either the somewhat disagree or disagree categories (Appendix D Fig. 17&18).

The respondents were finally asked if they had been denied training opportunities that they had requested as a part-time firefighter. Of those surveyed, 73.91 % answered No, and 26.09 % answered Yes (Appendix D Fig 22).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The data revealed that both groups were denied training opportunities, but the majority of both groups selected that they were not denied training (Appendix D Fig. 23&24).

In summary, the data reveals that the STFD does take some measures to retain part-time firefighters, but it clearly does not do enough. The STFD provides a department that meets the majority of the firefighter's individual needs as evidenced by only 3 participants selecting somewhat disagree, and no participants choosing disagree. The STFD, like many departments, does offer opportunities for promotion to full-time status, which most of the firefighters in each group identified as the main factor that would positively affect their employment with the STFD.

Room for improvement can be seen in the Recruit Training Program. Survey responses, although mixed, revealed that members did not have a consistent experience in either the training or working environment. Further improvement can be seen in the work culture of the STFD.

One third of the current and resigned firefighters acknowledged that the work culture of the STFD is not aligned with them without the ability to detail why in the survey. In addition, the denial of training opportunities is another area for possible improvement. Although almost 74% of those surveyed were not denied training opportunities, over a quarter of respondents were denied training opportunities, potentially affecting retention rates.

**Research Question 2- What are the factors that contribute to the loss of part-time firefighters at the STFD?**

To answer Question two, an internal survey was offered to all current and former part-time firefighters at the Sylvania Township Fire Department. ISQ #3,5,7,9, and 10 were designed to answer this research question.

The participants were first asked what age group they fit in when first employed as a part-time firefighter at the STFD. 34.78 % answered 18-24, 39.13 % answered 25-31, 17.39 % answered 32-38, and 8.70 % answered 39+ (Appendix D Fig.7).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The data revealed that the current and resigned group had a higher percentage of the overall group between the ages 18-24 and 25-31. The promoted group had a higher percentage of their group in the 25-31 and 32-38 age range (Appendix D Fig 8&9).

The participants were then asked during the hiring process, did they desire to work part-time, or full-time. Of those that responded, 95.65 % responded full-time, and 4.35 % responded part-time (Appendix D Fig. 13).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. Only one member selected part-time in the current and part-time group, and there were no selections for part-time in the promoted group. Full-time was the predominate choice in both groups (Appendix D Fig 14&15).

The participants were asked what could another fire service organization offer to draw their interest and cause them to consider leaving the STFD. They were asked to rank the answers with 1 being the most influential motivator. Full-time status was selected 56.52 % of the time as the most influential motivator to draw their interest to make them consider leaving the STFD. This was followed by Pay/Compensation structure (27.27%), Schedule flexibility (9.09%), Workload (4.55%), and Work/Life balance (4.55%) [Appendix D Fig. 19].

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The data revealed that both full-time status and pay/compensation were the main choices in the current and resigned group. Full-time status was the predominate selection in the promoted group (Appendix D Fig. 20&21).

Those surveyed were also asked if they felt that they were valued and treated fairly by the Supervisors/Administrators of the STFD. Of those that responded, 52.17 % answered that they Completely agree, 30.43 % Somewhat agree, 4.35 % Neutral, 13.04 % Somewhat disagree, and 0% Completely disagree (Appendix D Fig 25).

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The majority of both groups selected completely agree. The current and resigned group were then evenly split between somewhat agree and somewhat disagree. The promoted group had a significantly higher

percentage of somewhat agree versus neutral and somewhat disagree (Appendix D Fig. 26&27).

The participants were finally asked how engaged they are currently within STFD. Highly engaged (accept most work offerings, participate on committee(s) or teams) was selected 47.62% of the time, 23.81 % answered Somewhat engaged. 14.29 % answered Neutral. 0% answered Somewhat disengaged, and 14.29 % answered Disengaged (decline most work offerings, no participation on committee(s) or teams) [Appendix D Fig 28].

This data was further analyzed, and those both current and resigned part-time firefighters were compared with those who were promoted to full-time status. The data revealed that the current and resigned group was predominately disengaged, with the rest of the group split evenly between highly engaged and neutral. Those in the promoted group were mostly highly engaged, with no selection made that indicated somewhat disengaged or disengaged (Appendix D Fig. 29&30).

In summary, there are many factors that could possibly contribute to the loss of part-time firefighters at the STFD. The results revealed many potential retention factors that included generational components, desire for full-time employment, being drawn away by other fire service organizations, feeling valued, being treated fairly by supervisors/administration, and the extent that a firefighter is engaged in the STFD.

The results revealed that half of the respondents in the current and resigned group is in the 18-24-year range, and all but one is under the age of 31. When compared next to the promoted group, a generational component is identified as a possible factor in retention.

The result was conclusive when the participants were asked about their desire for full-time or part-time employment. All but one part-time firefighter stated their desire for full-time employment. Even though the STFD does have opportunity for promotion to full-time status, promotions to full time status are limited to either the retirement of full-time firefighters, or changes to the CBA, which can allow for more full-time opportunities through increases in minimum staffing.

When asked what could another fire service organization offer to draw your interest away from the STFD, the leading response was full-time status, followed by pay/compensation. All other draws pale in comparison to these two. There are multiple fire service organizations in the area that offer full-time employment, and each organization has competitive pay/compensation to remain competitive in this area.

The responses were mainly positive on the topic of the employees feeling valued and treated fairly by the supervisors/administration of the STFD. Both the current and resigned firefighters, as well as those in the promoted group had an 82.6% positive response.

There was, however, a stark difference between the groups when it came to how engaged the firefighter was at the STFD and retention. One third of those in the current and resigned group identified themselves as disengaged, and 22% selected neutral. This is in contrast to the promoted group, where no firefighter in the group identified themselves as either disengaged or even somewhat disengaged. The vast majority of this group (92%), identified as either highly engaged, or somewhat engaged.

**Research Question 3- What are some of the most significant costs associated with employing part-time firefighters?**

To answer Research Question three, data from External Survey Question #3 (ESQ 3) as well as the data collected from the Sylvania Township Fire Department administrative office were compiled and analyzed. Data from the STFD administrative office included hire and separation dates, as well as dates of promotion were available for all part-time employees from 2008 to present. Specific information related to the cost involved in hiring, orienting, and training new part-time firefighters were also collected. The results revealed that Although each applicant pays for both the written and physical agility exams, which are done thru both the National Testing Network, and The Firefighter Mile respectively, the department incurs \$ 5,624.00 in direct costs from each part-time firefighter hired from background checks, medical physical exam, duty uniforms, and individually sized personal protective equipment (Sylvania Township, 2019). These costs are a one-time investment which cannot be recouped in the event the individual resigns.

The total financial cost of a new part-time firefighter is \$17.15, which includes the starting wage of \$15.95/hr., Social Security income tax \$0.99/hr., and Workman's Compensation \$0.21/hr. (Sylvania Township 2019). Based on these data figures, the department has paid an average of \$18,177.80 (background, med. physical, uniforms, PPE, and wages) for each resigned part-time firefighter for a total of roughly \$272,667.00 (Sylvania Township, 2019).

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department has paid an average of \$18,177.80 (background, med. physical, uniforms, PPE, and wages) for each resigned part-time firefighter for a total of roughly \$272,667.00 (Sylvania Township, 2019)

Data was compiled to compare and contrast the part-time firefighters that have both resigned, and those that have been promoted to full-time status. Comparative data featuring average time on the department, hours worked, and number of emergency responses were compiled and analyzed.

The data revealed that of those firefighters that resigned, they stayed with the department for an average of 1.19 years. If the two extremes are removed (R-1, and R-5), the average lowers to 0.99 years. In comparison, those part-time firefighters that were promoted to full-time status were in the part-time ranks for an average of 1.34 years. If the extremes of this group are removed (P-1, and P-9), the average falls to 1.30 years. The data reveals that neither group has an average length of stay in the part-time ranks of longer than 1.34 years [Appendix A FIG. 3, 4]. According to the STFD Fire Chief, Michael J. Ramm, the return on investment from these resigned part-time firefighters that stay for less than two years are low (Ramm, M., 2019).

A total hour worked comparison was also considered. Those that resigned, on average, worked a total of 732.08 hours. When the extremes of this group are removed (R-2, and R-15), the average hours worked dropped to 635.49 hours. Those that were promoted to full-time status averaged working 1,087.54 hours before the promotions. With the extremes of this group removed, (P-4, and P-9), the average falls to 1,045.87 hours [Appendix A FIG. 5,6]. A point of note is that both groups completed the in-house recruit training program. This program lasts a minimum of 368 hours. The data revealed that, on average, those in the resigned group

worked less than 364 hours following the recruit training program, and those in the promoted group, worked only 719 hours. These are the effective hours that a part-time firefighter can be counted as supplemental staffing (Sylvania Township, 2019).

Finally, comparative data was taken for number of emergency responses (fire and EMS) for each group. Data revealed that those in the resigned group responded to an average of 113 emergency responses, and when the extremes from this group are removed (R-4, and R-10), the responses fall to 102.46. In comparison, those in the promoted group, on average, responded to 205.43 emergency responses. When the extremes (P-2, and P-8), were removed, the average dropped to 196.85 emergency responses [Appendix A FIG. 7,8].

This difficulty has also had negative effects within the STFD training program. Fire training for the STFD is led by a Captain who is in charge of training and safety. He is assisted by the station officers that are also certified fire instructors. The STFD trains to NFPA, ISO, and State of Ohio standards (Sylvania Township, 2019). The STFD Recruit Training Program, which is also led by the Training Captain, spans a total of 368 hours, and is a combination of a 40-hour administrative work schedule, and 24-hour platoon schedule (Sylvania Township, 2019). Each part-time firefighter is formally evaluated after each shift, and is informed by his/her officer about areas that they are performing well, and areas that there is need for improvement. The recruit has the opportunity at the end of the recruit training program to evaluate the program itself, and provide feedback in order to improve the program. The program has been changed to reflect the feedback from the recruits.

As a result of the “revolving door” of part-time firefighters, training at the STFD has experienced a lack of higher-level training for more senior firefighters due to the constant need of basic level training from the “revolving door” of new part-time firefighters. 46% of the part-

time firefighters that resigned did so prior to the completion on the Recruit Training Program (Sylvania Township, 2019). Many of the part-time firefighters even received poor evaluations during the recruit training program, which extended the time spent in the training program. The poor evaluations during the Recruit Training Program has further contributed to lower level training for the senior crewmembers, and increased overtime costs to the department due to part-time recruits that are not yet cleared to function as a third member of a suppression crew. NFPA 1500 5.1.4 states that the fire department shall restrict the activities of new members during emergency operations until the member has demonstrated the skills and abilities to complete the tasks expected (NFPA 1500).

From an operational standpoint, the decrease in available shift personnel adversely effects the number of available trained firefighters on a fireground. This decrease in personnel on an emergency scene lowers the efficiency of life-saving tasks that need to be quickly completed by as much as 13.4% (IAFF GIS 2006).

The shift officer in charge of scheduling notes continued time spent away from his crew due to the increased scheduling dysfunction that this problem has caused. Lt. Standiford is the officer in charge of the scheduling of part-time firefighters. He states that he typically spends “at least three hours per pay period away from his crew” in an attempt to manage the schedule. The “revolving door” of part-time employees, coupled with scheduling the employees at different stages of the recruit training process, while accounting for delays in skill development during the process have all helped contribute to the dysfunction.

ESQ3 asked this question to combination departments in Lucas County, and its adjoining counties in Northwest Ohio- “Has your department experienced increased financial expenditure to hire additional part-time personnel.” If so, they were to check all the financial areas that

applied to their department. The participants selected Hiring costs 30% of the time. 80% selected Equipping costs. 50% selected Training costs. 20% selected Overtime cost. 80% selected Wage increases to remain competitive, and 20% selected Incentives. The incentives that they provided in the survey were an education stipend, and limited benefits, holiday pay, etc. (Appendix E Fig 3).

The data revealed that all departments surveyed have experienced increased financial expenditure hiring additional part-time personnel. The majority of increased expenditure is experienced the equipping costs, wage increases to remain competitive, and training costs (Appendix E Fig.3).

In summary, the results from both data provided by the STFD administrative office, as well as from ESQ3, revealed some areas of significant cost in employing part-time firefighters. The data revealed that the lion-share of the cost is in the areas of equipping firefighters, wage increases to remain competitive, and training costs. Non-monetary costs identified by the STFD were the indirect and opportunity costs. The STFD, like the other departments that participated in the survey, identified these areas of significant cost as well. The STFD does not currently offer some of the incentives that other departments offer the part-time firefighters. While the STFD does provide competitive part-time wages, they do not offer incentives such as an education stipend, limited benefits, or holiday pay.

#### **Research Question 4- What do some other fire departments similar to STFD do that might affect the retention of part-time firefighters?**

To answer Research Question #4, an external survey was sent out to 24 combination departments in both Lucas and its adjoining counties in Northwest Ohio that employ part-time firefighters. All of the External Survey Questions (ESQ), with the exception of ESQ 3, were

used to focus on this final Research Question.

The departments surveyed were first asked if their departments were currently having issues retaining part-time firefighters. The departments admitted to currently having this issue 83.33% of the time, and 16.67% stated that they did not have issues with retaining part-time Firefighters (Appendix E Fig.1).

The departments were then asked what the average retention is of their part-time firefighters who were hired after 2010. The departments chose 0-2 years 45.45% of the time, 36.36% responded 2-4 years, 18.18% responded 4-6 years, and 0% responded 6+ years (Appendix E Fig.2).

The departments were asked when hiring full-time firefighters, what is their process. Only 10% responded that they hire exclusively from your Part-time list. 20% responded that they hire exclusively using entrance exam process. 10% responded that they hire exclusively using an entrance exam process, where the internal Part-time firefighters will receive bonus points on the exam if they pass. 60% state that they hire using another process. One department specified that they post that they are hiring, or word of mouth. The others stated that they do not hire full-time firefighters, and another department stated that they only have 3 full-time positions (Chiefs) [Appendix E Fig.4].

The departments were also asked if they have a formal mentoring/employee development program for part-time firefighters. Of the departments that responded, 33.33% selected that they do have a formal mentoring/employee development program, and 66.67% responded that they do not (Appendix E Fig. 5).

The departments were then asked what successful retention strategies/initiatives has the department done to help retain part-time firefighters. Increased pay/compensation were chosen

70% of the time, 70% use Holiday pay, 30% Chose education incentives, 10% surveyed use sick leave, 10% use Life insurance or disability insurance, 10% selected that they do not use retention strategies, 10% chose other, and specified that they use paid vacation time, and 0% of those surveyed use Longevity benefits, Bonus pay, or Health insurance. The data reveals that increased pay/compensation and holiday pay are the most used, and successful retention strategies that are being deployed by the departments surveyed (Appendix E Fig.6).

Departments were then asked if they, or their Human Resource department conducts exit interviews for part-time firefighters that voluntarily resign from their department. Their answers revealed that 41.67% of the departments do conduct exit interviews, and 58.33% of the departments do not (Appendix E Fig.7).

The departments were then asked if the exit interviews proved helpful in identifying trends regarding the voluntary resignations. The departments answered yes 9.09% of the time, and 45.45% of them answered no. Departments that were willing to list identified trends that proved helpful are listed below (Appendix E Fig.8).

The trends provided are as follows:

1. Leaving for higher pay or part-time opportunity with advancement to full-time potential.
2. Full-time position elsewhere.
3. Time commitment, or leaving for full-time positions in larger departments & growing families/less time for part-time jobs.

The departments were asked if they feel their department will have, or continue to have part-time firefighter retention problems in the next 5 years. Of those that responded, 81.82% responded Yes, we will continue to have increased Part-time firefighter retention problems.

18.18% responded Yes, but our retention trends have been improving over the past three years. 0% responded No, we don't currently have firefighter retention problems. 0% responded No, we will plan on discontinuing use of Part-time firefighters, and instead use more volunteer firefighters, and 0% responded No, we will plan on discontinuing use of Part-time firefighters, and instead use more Full-time firefighters (Appendix E Fig. 9).

Finally, the departments were asked if their department is a certified training center that is able to train new recruits, and certify them to FF1 or FF2. 41.67% responded that they were a certified training center, and 58.33% selected no (Appendix E Fig. 10).

In summary, although the majority of fire departments similar to STFD also have problems with part-time firefighter retention (83.33%), some departments are developing strategies that may affect retention.

Similar to the STFD, part-time firefighters at the departments that responded, typically stay with their respective departments for less than two years. In order to retain part-time firefighters, 33.33% of the departments that responded have instituted Formal mentoring/employee development programs.

Many of the departments have been instituting retention strategies/incentives to help retain part-time firefighters. The most successful incentives are increased pay/compensation, Holiday pay, education incentives, sick leave, and Life or disability insurance. Some departments (41.67%) are certified training centers that are able to train new recruits, and certify them to FF1 or FF2. This is done not only to attract new recruits that want the training, but to provide further training in an attempt to retain them for as long as possible.

The hiring processes at the various departments vary significantly, which does not allow for a constant variable to compare data. Only 10% of the departments that responded hire

exclusively from their part-time list.

Only 41.67% of the departments are conducting exit interviews for part-time firefighters that voluntarily resign from their department. That means that important retention data is lost from 58.33% of the departments. This data may have been beneficial in shedding further light on this issue, and identify why they are resigning. Trends that were identified by other departments centered on Full-time opportunities elsewhere, higher pay, and problems with time commitments.

The future outlook for part-time retention in this area is not improving for the majority of departments. Continued retention problems are foreseen in 81.82% of the departments that responded. With the current effort being put forth by similar fire departments that are developing retention strategies, more data points are being made available to develop a more comprehensive, and effective retention strategies.

## Discussion

The Sylvania Township Fire Department has experienced a limited retention of part-time firefighters resulting in a significant cost to the department. This author admits that he was unaware of the severity of this problem until the data was compiled, and analyzed. This author also agrees with Kossivi, Xu, & Kalgora (2016) in their belief that the employee is the most valuable asset to an organization, and that their significance to the organization demands the need to not only attract the best talent, but to also retain them for a long-term. Furthermore, this author agrees with the argument made by (George, 2015) that it is the responsibility of the organizational leaders to address this issue of retention, and that the negative implications to the STFD, and others will continue if this issue is not addressed.

The literature is clear that organizations in both private and public sectors are experiencing part-time employee retention problems. [ESQ 1] The OFCA 2016 assessment affirmed that retention problems are currently being experienced in Ohio, and 83.33% of the fire departments that responded to the external survey in this research echoes that assessment. Fire departments across both the State of Ohio, and the nation, are researching the issue of retention through Research projects such as this, using instruments such as surveys, and exit interviews in order to collect data. The data from this research further reflects the research conducted by (Kossivi, Xu, & Kalgora, 2016) that states that employee commitment and retention are not determined by a single issue, but by a cluster of factors.

[ISQ 1] The first factor that was considered when addressing retention was whether the

wants and needs of the part-time firefighters were being met. The author believes that this factor is crucial, and can't be overlooked. Gardner 2008, in his research, suggests that the organizations can use this data to develop retention strategies to reduce voluntary resignation. The data from this research revealed that the STFD was able to meet the firefighters' individual needs as evidenced by the predominately positive responses in the internal survey.

[ISQ 2] This author collected data on the experience of the Recruit Training Program, whether the experience was positive or negative to see if this could be a possible factor in the retention of part-time firefighters at the STFD. The internal survey data revealed mixed results from the current and resigned group. The author believes that after studying the internal survey data, that this is an opportunity for improvement in the department, and that providing a consistent training and work environment may be beneficial in improving retention.

[ESQ 2] The author collected data to see if there would be a possible correlation between both the part-time firefighter longevity at the STFD, and combination fire departments in Lucas and adjoining counties. The data revealed that those that resign from the STFD, they do so within 1.19 years, and the external survey data reflects this trend as well as evidenced by 45.45% of the responding departments experiencing resignation within 0-2 years. The research provided by Vecchi (2014) provided almost identical results with a 46.15% resignation of part-time staff within two years of joining their organization. This author believes that the implications to the organizations that that experience resignation this early is devastating because of the lack of return on investment, and retention strategies to curtail resignations should be implemented.

[ISQ 3] Generational factors are also being studied, and the literature speaks to this point. Fry (2015), states that one component of employee turnover in today's workplace is generational. According to Cunningham (2006), "workers between the ages of 25 to 34 have a

median tenure of only 2.9 years.” This author agrees with the literature that factors in employee turnover in today’s workplace are generational., and the internal survey data reflects that belief. The internal survey data revealed that there was a comparative difference in ages between the current and resigned group versus the promoted group. This author believes that this is a significant factor, and it warrants further study.

[ERQ 5] Stein (2016) offers that companies can be successful in managing Millennials. He believes that in order to do this, organizations should focus on mentoring, work/life balance, understand that Millennials primary motivator is not financial, accelerate feedback intervals, provide a strong organizational culture, provide recognition, and embrace digital technologies. The STFD does not have a mentorship program, and the external survey revealed that 66.67% of the departments that responded do not either. The author agrees with (Stein 2016), which suggests to properly manage Millennials, organizations should focus on mentoring.

[ISQ 4, 7] Finnegan (2010) understood that when employees receive things that they value that they cannot get anywhere else, they are prone to stay. This author gathered data of possible retention factors from the literature to see which factor might influence the retention of STFD part-time firefighters the most. This author took retention factor suggestions from the literature such as workload, flexibility, opportunities for full-time employment, and pay and benefits from research conducted by Rindler, Kennedy, and Meckstroth (2010). The factor of Work-life balance was a contribution by Todd & Binns (2013). Further contribution factors were wages, inadequate or substandard equipment, limited advancement opportunities, and proximity of the work location to home from Gardner (2008). Vecchi (2014) added the categories of schedule flexibility, and external training. The internal survey took these factors, and asked which would most positively affect their employment at the STFD. This research revealed that opportunities

for promotion to full-time was the most selected factor, followed by Quality of Leadership/Administration, and Wages and benefit package. Those current and resigned STFD part-time firefighters that participated in the survey, identified full-time status, followed closely by pay/compensation as the main factor that would draw their interest and cause them to leave the STFD. This author acknowledges that opportunities for promotion to full-time, and wages and benefit packages are the most expensive of the listed factors for any fire department budget, and many fire departments are not in a financial position to provide them.

[ISQ 5] Vecchi (2014), states that part-time firefighters have a very specific focus in mind, and that is the attainment of their professional goal to become a full-time firefighter. STFD Fire Chief Michael J Ramm, stated that “every STFD part-time firefighter desires full-time, career employment with the STFD.” The data from the internal survey confirms that statement. The desire for full-time status is important to both the past and current STFD part-time firefighters. The survey results proved that 95.65% of internal survey respondents desired full-time status during the hiring process.

[ISQ 6] Factors such as work culture and training opportunities are also being evaluated. Schawbel (2013) suggests that a work culture that is aligned with an individual Millennial is the leading indicator of retention and longevity. The internal survey revealed that one-third of the current and resigned firefighters do not believe that the work culture of the STFD is aligned with them. This topic will require more research due to the fact that the participant was not able to specify why.

[ISQ 8] Span (2013), believes that Training and Development play a major role in retention. Over a quarter of the internal survey respondents stated that they were denied training opportunities. This author believes that this potential factor should be investigated further to

identify why training was denied, and make appropriate adjustments in the future if possible.

[ERQ 10] Fire departments in Lucas and adjacent counties are surveyed if their fire department is a certified training center that is able to train new recruits, and certify them to FF-1 or FF-2.

This may provide certification training, and developmental training that may improve retention.

The external survey data revealed that 41.67% of the departments that responded are certified training centers. The STFD is not currently a certified training center, and as a result, part-time firefighters are forced to gain certification training elsewhere at their own cost. This author believes that the ability to train and certify all firefighters in-house is not only an invaluable asset, but also a potential factor in the retention of part-time firefighters.

[ISQ 9] The level that the employee feels that they are valued, and treated fairly by the administration is also a key component being researched, as well as how engaged the employee is with the company. (Cho & Sai 2012) believe that the fairness of workplace procedures will affect the employees' commitment to remain with an organization. Employees commit to organizations when leaders use fair decision-making strategies (Bianchi, E. C., & Brockner, J. 2012). (Cho & Lewis 2012), in their research, understood that valuing and treating employees fairly can influence retention rates in an organization. The data from the internal survey shows that the majority of both the current and resigned group and the promoted group believed that they felt valued and treated fairly. The current and resigned group were then evenly split between somewhat agree and somewhat disagree. Neither group had anyone that selected disagree.

[ISQ 10] Hickey (2011) suggested that lack of ownership and involvement were the main reasons that their personnel resigned. Barrick, Thurgood, and Courtright (2015) believe that the leader must build a relationship in which employees can see how their values align with the values of the organization. Those authors were able to show connections between employees

feeling valued and their level of engagement with the organization. When it came to how engaged the part-time firefighters were, there was a clear difference between the two groups. Those that were in the promoted group were much more engaged, as opposed to the current and resigned group. One third of those in the current and resigned group identified themselves as disengaged, and 22% selected neutral. This author agrees with Rigoni & Adkins (2016), who reported that 47 percent of “actively disengaged” Millennials indicated a high likelihood of leaving their jobs if better conditions exist elsewhere. This author, in response to the data presented, believes that further research should be done to discover how to better engage the part-time firefighter, and provide better opportunities for them to engage with the department.

[ESQ 3] The literature clearly shows that employee turnover has a significant cost on the employer. This author agrees with J. Beam (2008) who suggests that a company take a deep interest in their employee turnover rate, because it is a costly part of doing business. Decreasing employee turnover would likely lead to significant cost savings for organizations, as hiring new workers involve training and orientation expenses (Cho & Lewis, 2012). The STFD is no different, and according to STFD Fire Chief Ramm, the return on investment from these resigned part-time firefighters that stay for less than two years are low. The author wanted to see if there was a correlation between the STFD, and the combination departments in Lucas and adjacent counties. The data showed that all departments surveyed have experienced increased financial expenditure hiring additional part-time personnel. The majority of increased expenditure is experienced the equipping costs, wage increases to remain competitive, and training costs. This author believes that the organizational implications to the departments will be the continued increased direct, indirect, and opportunity cost if not enough is done to improve retention.

[ESQ 4] The literature sheds light on how hiring exclusively from the department’s part-

time ranks could affect retention. Rindler, Kennedy, and Meckstroth (2010) offers the idea that hiring full-time staff exclusively from the part-time pool will help motivate part-time employees to do their best, and encourage loyalty since they ultimately are striving for the full-time position. The Sylvania Township Fire Department has routinely promoted personnel from its part-time ranks, but there is currently not a policy in place to exclusively promote from the part-time ranks (Ramm 2019). The STFD does not have this policy, but the author wanted to collect data from the adjacent combination departments to see if they have this policy, and if it affects retention. The data shows that only 10% of those departments that responded hire exclusively from their part-time ranks. This author agrees with the literature, and believes that this is an important factor in encouraging loyalty, and motivation for the part-time firefighter.

[ESQ 6] This author agrees with Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013), and (George 2015) who suggest that implementing strategies to reduce turnover costs in public organizations is necessary, and that focusing on employee retention may result in decreased costs and improvements in organizational performance. The Literature also shows that the implementation of incentives may be beneficial in part-time retention. This author collected data to see if combination departments in Lucas and adjoining counties were able to successfully implement retention strategies/ initiatives that help retain part-time firefighters. The data shows that the most successful strategies/initiatives that have been used by the departments that responded were increased pay/compensation (70%), and Holiday pay (70%), followed by educational incentives (30%). Sick leave and Life or disability insurance was only offered by 10% of those that responded.

[ESQ 7, 8] The Literature and the survey data regarding the importance of exit interviews as a tool to develop a retention strategy is clear. Mitchell, T. R., Holtom B, C, Lee T. W. (2001),

believe that the first steps in developing a retention plan are largely strategic: Determine why people are leaving by conducting exit interviews. The lack of survey participation from the former part-time firefighters speak to the need of exit interviews. The STFD has recently started exit interviews, but no part-time firefighters have resigned during this time period to gather data. If exit interviews had been implemented from the beginning, the author believes that they may have revealed potential deficiencies in our process, and as a result, the data gathered could have been used as a mechanism for change. Having the HR department or an outsider conduct the interview also helps the leaver to not fear retribution. This author agrees with Gregory (2006) who believes that if the person doing the exit interview digs a little deeper, other factor will emerge. Once you have the then ask why that is important to them because if it's important to them, most likely it's important to others as well.

This author collected data to see if other combination departments in Lucas, and adjoining counties practiced exit interviews, and if so, have their exit interviews proved helpful in identifying any trends regarding the voluntary resignations. Their data showed that 45.45% of those that responded did not believe that the exit interviews proved helpful in identifying trends regarding the voluntary resignations. The trends that were provided centered on that part-time firefighters were leaving for higher pay or part-time opportunity with advancement to full-time potential. Time commitment, or leaving for full-time positions in larger departments & growing families/less time for part-time jobs were also offered as noticed trends.

Often times in both the public and private sectors, employees are given the opportunity to voluntarily resign, or have their employment terminated for various reasons. These reasons can range from sub-standard performance, to department policy violation. More times than not, the employee will elect to voluntarily resign as to not have a blemish on their employment history

moving forward. The author believes that the ability to gather data that identifies whether the employee resigned as a result of personal reasons vs. resigning in lieu of termination is vital to more clearly identify both deficiencies in our current process, as well as the state of the current hiring pool.

[ESQ 9] Gaining a regional understanding of the future outlook of part-time retention from the combination departments in Lucas, and adjacent counties may provide further understanding of long-term beliefs of retention problems. The data suggests that the future outlook of part-time retention is bleak. Of those that responded, 81.82% believe that they will continue to have increased Part-time firefighter retention problems in the next five years, and the remaining 18.18% believe that they will continue to have problems, but their retention trends have been improving over the past three years.

In summary, in order to improve retention, this author believes that it is imperative that the STFD makes part-time firefighter retention a priority. After reviewing the research and survey data, this author is truly amazed at both the scope of this issue, as well as the negative organizational implications that it has to the STFD. If this problem of part-time retention is left unchecked, the STFD will continue to experience a limited retention of part-time firefighters resulting in a significant cost to the department.

## Recommendations

The problem that this study investigated was that the Sylvania Township Fire Department has experienced a limited retention of part-time firefighters resulting in a significant cost to the department. The purpose of this study was to identify research-based information that will help improve part-time firefighter retention within the Sylvania Township Fire Department (STFD). The research provided the STFD Administration with research-based information to aide them in developing strategies that will improve part-time firefighter retention. To address the problem of this study, the following recommendations are made:

1. *The STFD needs to develop and implement a formal retention strategy.*

Gardner (2008), suggests that fire departments begin to understand the needs and wants of the part-time firefighter/paramedic in order to develop strategies to reduce their voluntary resignation. In order to accomplish this, the STFD should form a committee to investigate all possible avenues to improve the retention of part-time firefighters. The committee will consist of selected members from every level of the department. Members would include, but not be limited to, the part-time program, senior career firefighters, Lieutenants, and a Battalion Chief. Selection to this committee will be conducted by the Assistant Fire Chief, and will require a letter of interest and resume.

This committee will also continue to collect data annually from not only the STFD, but also from our surrounding departments in order to identify possible regional retention trends. Data collection will include, but not be limited to, surveys and exit interviews.

The cost analysis on this committee would be minimal. An online survey software such as SurveyMonkey, may be used to create free surveys which will be used to collect and analyze the data. The only cost needed would be the wages of those attending committee meetings while off duty. This committee will report to the Fire Chief all findings, results, and recommendations on a semi-annual basis.

Data from this research revealed that 70% of the departments are currently utilizing retention strategies/incentives such as increased pay/compensation and Holiday pay to retain part-time firefighters, as well as other incentives such as education incentives (30%). Other strategies/ incentivizes that are also being utilized are sick leave (10%), and life or disability insurance (10%).

The STFD will bring the pay scale of all part-time firefighters in line with the pay scale of the career firefighters, including step pay raises. This will allow the STFD to not only continue to be competitive with surrounding fire departments, but the step pay raises for years of service with the department will promote retention. The current hourly cost of a part-time firefighter is \$17.15, and the base hourly wage of a step 1P career firefighter at the STFD is \$20.64. This is an increase of pay of \$3.49/hr. for step 1P, \$ 1.60/hr. increase after 1 year to step 2P, \$1.29/hr. increase after 2 years to step 3P, \$ 1.49/hr. increase after 3 years to step 4P, and \$ 1.74/hr. increase after 4 years for step 5P. The cost analysis of this measure would be significant increased cost to the department, but the possible positive implications to the department regarding part-time retention may be well worth the investment.

The STFD must allot sufficient funds the training budget, as well as time in the staffing schedule, for the education/training of part-time firefighters. Data suggests that half of the current and resigned group of part-time firefighters were denied training opportunities. This will

not only improve retention, but will also aid the department in better living out its Mission Statement which includes providing “non-emergency support services within our realm of expertise through highly skilled, trained and dedicated personnel.”

In order for a part-time firefighter to be considered for promotion to full-time status at the STFD, they must have an EMT-P certification. The retention strategy should include benefits such as EMT-P school tuition reimbursement for those part-time firefighters that have worked over 1,000 hours/year for three years. The STFD should also offer FF2 certification for those part-time firefighters that remain employed with the STFD for greater than two years. The cost analysis for these benefits would be significant, but may promote retention by offering them an incentive to stay, as well as demonstrating the commitment that the department has to both its members and the community.

Data revealed that it was the desire of the part-time firefighter to work full-time (95.65%). In light of this data, promoting full-time firefighters exclusively from the part-time ranks may also be worthy of consideration in the retention strategy. This practice may affect retention at the STFD by providing an exclusive path for part-time firefighters to be promoted to full-time status at the STFD. The STFD must also make changes to its hiring process. Test advertisement from the NTN must also include improved advertisement through numerous sources of social media, including but not limited to, Facebook, Instagram, Twitter, and Snap Chat in order to actively search for qualified, local applicants. Advertisement via social media has been used in the past by the STFD, but has been limited primarily to the department, and Local 2243 Facebook page.

2. *The STFD must continue to utilize an exit interview process to identify possible resignation trends.*

This process is relatively new to the STFD, and there have not been any part-time firefighters that have been through it. The exit interviews are currently voluntary, and being conducted at the STFD. The STFD must continue to utilize voluntary, exit interviews, but they must either be conducted by an individual outside of the STFD, such as a member from the Sylvania Township Human Resources Department, or accomplished by use of an online survey software that is emailed to the individual, such as SurveyMonkey.

Data collected through this research revealed that of the departments that participated, 41.67 % conducted exit interviews. Of those that participated, 45.45% responded with trends regarding voluntary resignations. Each response is a potential data point that can be collected and analyzed for future retention strategies. These trends discovered in the exit interview process can potentially reveal deficiencies in the department, hiring process, or be used as a tool for developing or enhancing a retention strategy. Gregory (2006) believes that if the person doing the exit interview digs a little deeper, other factor will emerge. During the exit interview, it is important to also gather data that identifies whether the employee resigned as a result of personal reasons vs. resigning in lieu of termination. This specific data may more clearly identify both deficiencies in the current process at the STFD, as well as the state of the current hiring pool.

The cost analysis for this recommendation is minimal. Both the exit interview conducted by the Sylvania Township Human Resources Department, as well as the online survey software, can be a minimal in cost, or free. The potential benefit to this change in exit interview may lead to improved retention strategies, which may improve retention of part-time firefighters.

3. *The STFD needs to develop a formal mentorship program for part-time firefighters.*

The mentorship program will enhance the work culture, limit generational effects, and increase the level of engagement within the STFD. The literature and data from this study are clear that these characteristics are important in retention.

The literature identified that since the labor, and ultimately the leadership of Generation Y will be necessary to maintain the workforce, organizations need to focus now on mentoring, and training Generation Y to prepare them with the skills that the business will need in the upcoming decade (Zemke, Raines, and Filipczak, 2000). Data from this study revealed that over half of the current and resigned firefighters that responded were between the ages of 18-24 years old. The age ranges of a Millennial in 2019 is between 19 and 37 years old. Data from this study further revealed that the majority of part-time firefighters in the STFD fall in those age ranges.

Data collected by this research revealed that one-third of the current and resigned firefighters do not believe that the work culture of the STFD is aligned with them. Having senior career members mentoring new part-time firefighters will create an environment that can build trust and camaraderie in an effort to improve the work culture within the STFD.

A mentorship program will also allow the part-time firefighter to become more engaged with the organization. Almost half of the current and resigned part-time firefighters identified themselves as being disengaged in the STFD. Data from this study also revealed that, 33.33% of the departments that responded have instituted Formal mentoring/employee development programs.

The STFD does not currently have a formal mentorship program. In order to accomplish

this, a committee should be formed using members from each level in the department from the senior leadership to the newest part-time firefighter. to design and implement a mentorship program for the part-time firefighters employed by the STFD. Selection to this committee will be conducted by the Battalion Chief of their respective shift, and application will require a letter of interest and resume. The Battalion Chief will consult with the station Lieutenants, and be responsible for selecting the mentors. The Battalion Chiefs are most familiar with the shift as a whole, and the Training Captain will be responsible for the training of the mentors.

The cost analysis for this mentorship program would only include time spent and supplies needed training mentors both on duty, and off duty if necessary. The potential cost benefit in improving retention of part-time firefighter through a mentorship program would be worth the upfront cost of the program itself.

*4. The STFD needs to evaluate its Recruit Training Program for quality, consistency, and work environment.*

Results from the internal survey data from this study revealed a mixed response from the participants, but it did shed light on potential problems with quality, consistency, and work environment. The data revealed that almost half of the respondents from each group selected neutral to somewhat disagree when asked if the RTP experience was positive, and almost one quarter of respondents were denied training opportunities. The data given in the explanations area from ISQ2 will be valuable in shaping the future of the new Recruit training Program.

In order to improve quality, consistency, and work environment during the Recruit Training Program, the STFD must become a certified training center that is able to both train new recruits, and certify them to FF1 and FF2. Becoming a certified training center would offer

a consistent academy style environment that was noted in the internal survey. The training center would be operated by fire instructors that are selected by the Training Captain. This instructor selection would ensure a quality training experience, as well as a positive working environment while in the Recruit Training Program. The training center would also provide additional training certifications such as HAZ-MAT and rope rescue which may incentivize retention. The cost analysis for this will be significant, but may improve retention of part-time firefighters.

During phase 2 of the Recruit Training Program, part-time firefighters should remain at the same station, with the same crew. The crew should have a certified fire instructor, and will be selected by the Training Captain to ensure quality of instruction, and work environment. This will help also build consistency for both the part-time firefighter, as well as the officer that is assessing the recruit's skills over that period of time.

These recommendations are provided for the use of the Sylvania Township Fire Department, as well as all those organizations attempting to improve part-time firefighter retention in their respective organizations. Future readers who may wish to replicate some or all of the areas of the study within their own organizations should use the data collected in this study as a data point for research in their department or region. This data can then be compared on the State and National levels to identify common trends. Further study should be taken to determine how retention factors are changing, and how the fire service itself can best change to meet the ever-changing demands of this problem.

### References

- Barrick, M. R., Thurgood, G. R., Smith, T.A., & Courtright, S.H. (2015). Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal*, 58, 11-135. doi:10.5465/amj.2013.0227
- Beam, J. (2008). wiseGEEK *What is employee turnover?* Retrieved from <http://www.wisegeek.com/what-is-employee-turnover.htm>
- Bianchi, E. C., & Brockner, J. (2012). In the eyes of the beholder? The role of dispositional trust in judgements of procedural and interactional fairness. *Organizational Behavior and Human Decision Processes*, 118, 46-59. doi: 10.1016/j.ohdp.2011.12.005
- Bromen, N (2000, December). *Understanding Part-Time Staffing Issues in the Fire Service* Retrieved from Emmitsburg, Maryland National Fire Academy. <https://www.bls.gov/ooh/protective-service/firefighters.htm>
- Bureau of Labor Statistics. Table 6. Selected Paid Leave Benefits: Access. 2014. Available at: <http://www.bls.gov/news.release/ebs2.t06.htm>.
- Cho, Y. J., & Lewis, G. B. (2012). Turnover intentions and turnover behavior: Implications for retaining federal employees. *Review of Public Personnel Administration*, 32, 4-23. Doi: 10.1177/0734371X11408701
- Chao, G.; Gardner, P. 2008. Young adults at work. MonsterTrak. White Paper. 13 p. <http://ceri.msu.edu/publications/pdf/yadultswk3-26-09.pdf>
- Cho, Y. J., & Sai, N. (2012). Does organizational justice matter in the federal workplace? *Review of Public Personnel Administration*, 33, 227-251. doi:10.1177/0734371x12458126

- Collective Bargaining Agreement Between Sylvania Township Board of Trustees and International Association of Fire Fighters Local No. 2243 January 1, 2017-December 31, 2019.
- Cunningham, Ink Magazine (2006) Attracting and Retaining Employees in a Competitive World p.71
- Dalton, D. R., & Todor, W. D. (1979). Turnover turned over: An expanded and positive perspective. *Academy of Management Review*, 4, 225-235.  
doi:10.5465/AMR.1979.4289021
- Ellinger, A. E., Findley Musgrove, C. (C.), Ellinger, A. D., Bachrach, D. G., Elmadag Bas, A. B., & Wang, Y-L. (2013). Influences of organizational commitment in social capital on service employee commitment and performance. *Journal of Business Research*, 66, 1124-1133. doi: 10.1016/j.jbusres.2012.03.008
- Finnegan, R.P. (2010). *Rethinking retention in good times and bad: Breakthrough ideas for keeping your best workers*. (pp.13-124). Boston, Massachusetts: Davies-Black.
- Fry, R. (2015). *Millennials surpass Gen Xers as the largest generation in U.S. labor force*. Pew Research Center.
- Gardner, K., *Avoid Becoming a Stepping Stone Department*. Ohio Fire Executive Program.
- George, C. (2015). Retaining professional workers: What makes them stay? *Employee Relations*, 37, 102-121. doi:10.1108/ER-10-2013-0151
- Graylyn Stargill, 2016
- Gregory (2006) *Journal of Extension*, Investing in the Future p.81-90

- Griffeth, R.W., Hom, P.W., Gaertner, S., 2000. A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the next millennium. *Journal of Management* 26 (3), 463-488.
- Grissom, J. A. (2012). Revisiting the impact of participative decision making on public employee retention: The moderating influence of effective managers. *American Review of Public Administration*, 42, 400-418. doi:10.1177/0275074011404209
- Guiding, C. Lamminaki, D., & McManus, L. (2014). Staff turnover costs: In search of accountability. *International Journal of Hospitality Management*, 36, 231-243. doi: 10.1016/j.ijhm.2013.10.001
- Guinot, J., Chiva, R., & Roca-Puig, V. (2014). Interpersonal trust, stress, and satisfaction at work: An empirical study. *Personnel Review*, 43, 96-115. doi:10.1108/PR-02-2012-0043
- Hamstra, M.R.W., Sassenberg, K., Van Yperen, N.W., & Wisse, B. (2014). Followers feel valued- When leaders' regulatory focus makes leaders exhibit behavior that fits followers' regulatory focus. *Journal of Experimental Social Psychology*, 51, 34-40. doi: 10.1016/j.jesp.2013.11.003
- Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management*, 39, 573-603. doi:10.1177/0149206311424943
- Hickey, J.E. (2011). *Retention issues facing Champion Township Fire Department*. Ohio Fire Executive Program
- Hosford, N. A. (2006). *Adaptation to a changing workforce: How the Kettering Fire Department can meet the challenges of emergency operations in the future*. Columbus: Ohio Fire Executive Program.

Inman, C., Enz, C., 1995. Shattering the myths of the part-time worker. *Cornell Hosp. Q.* 36 (5), 70-73. <http://dx.doi.org/10.1177/0001088049503600526>

International Association of Firefighters., 2006. Geographic Information System (GIS) Fire Suppression and Emergency Medical Services Response Capabilities Analysis. Sylvania Township Fire Department p.92

Jiang, K., Lepak, D.P., Hu, J., & Baer, J. C. (2012a). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55, 1264-1294.  
doi:10.5465/amj.2011.0088

Johanson, M.M., Cho, S., 2009. Uncovering the link between organizational behaviors and employment status in the U.S. hotel industry. *J. Hum. Resour. Hosp. Tour.* 8(2), 182-198.  
<http://dx.doi.org/10.1080/15332840802269825>

Kalemci, Tuzun, I., & Arzu Kalemci, R. (2012). Organizational and supervisory support in relation to employee turnover intentions. *Journal of Managerial Psychology*, 27, 518-534. doi:10.1108/02683941211235418

Kavetski, B. (2016, March 3). *High turnover among public safety employees*. Retrieved from LinkedIn

Kim, S., & Park, S. M. (2014). Determinants of job satisfaction and turnover intentions of public employees: Evidence from US federal agencies. *International Review of Public Administration*, 19(1), 63-90. Doi: 10.1080/12294659.2014.887354

Kossivi, B., Xu, M., & Kalgora, B. (2016). Study on Determining Factors of Employee Retention. *Open Journal of Social Sciences*, 216-268.

- Levy, A. J., Joy, L., Ellis, P., Jablonski, E., & Karelitz, T. M. (2012). Estimating teacher turnover costs: A case study. *Journal of Education Finance*, 38(2), 102-129.
- Maertz, C. P., & Campion, M. A. 1998. *25 years of voluntary turnover research*
- Mitchell, T. R., Holtom B, C, Lee T. W. (2001) How to keep your best employees: Developing an effective retention policy, from *Academy of Management Executive*, 2001. Vol. 15 No. 4
- Mohr, D. C., Young, G. J., Burgess, J. F, Jr. (2012). Employee turnover and operational performance: The moderating effect of group-oriented organizational culture. *Human Resources Management Journal*, 22, 216-233. doi:10.1111/j.1748-8583.2010. 00159.x
- National Firefighter Protection Agency 1500. 15.1.4
- Office of the Independent Budget Analyst Report (2008). *Fire-Rescue Business Process Reengineering*. (IBA Report Number 08-51). Retrieved from Research on Cost Effective Analysis + Full time + fire department Ohio Fire Executive Program 10-45.docx  
[http://docs.sandiego.gov/councildockets\\_attach/2008/May/05-19-2008\\_Item\\_203.pdf](http://docs.sandiego.gov/councildockets_attach/2008/May/05-19-2008_Item_203.pdf)
- Ohio Fire Chiefs Association (January 2016). *Shared Services Study for the Butler County Fire Chiefs Association*.
- Ohio Revised Code 2015. 505.60 (G) (I)
- Park, T-Y., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, 98, 268-309. doi:10.1037/a0030723
- Phillips, J.J., & Edwards, L. (2008). *Managing talent retention: An ROI approach*. (pp.33-36). Hoboken, New Jersey: Pfeiffer
- Ramm, M., 2019. STFD Fire Chief. Interview

- Rass, M., Dumbach, M., Danzinger, F., Bullinger, C., & Moeslein, K. M. (2013). Open innovation and firm performance: The mediating role of social capital. *Creativity and Innovation Management*, 22, 177-194. doi:10.1111/caim.12028
- Rielage, R. (2016, September 13). *Fire department staffing: overtime vs. hiring*. Retrieved October 23, 2019, from Fire Chief, <http://www.firechief.com/2016/09/13/fire-department-staffing-overtime-vs-hiring/>
- Rigoni, B., & Adkins, A. (2016, May 11). *What Millennials Want from a New Job*. Retrieved from Harvard Business Review: <https://hbr.org/2016/05/what-millennials-want-from-a-new-job>
- Rindler, M., Kennedy, C., Meckstroth, R., (2010, December 20). *City of Piqua Fire Department Part-time Staffing Evaluation*. Retrieved June 2019, from Piqua firefighters Local #252: <http://piquafire.com/Piqua%Fire%201IAFF%2052.htm>
- Salleh, M., Amin, A., Muda, S., & Abi Sofian Abdul Halim, M., (2013). Fairness of performance appraisal and organizational commitment. *Asian Social Science*, 9(2), 121-128. doi:10.5539/ass.v9n2p121
- Schawbel, D. (2013). *Millennial Branding and Beyond.com Survey Reveals the Rising Cost of Hiring Workers from the Millennial Generation*. Boston, Massachusetts: Millennial Branding.
- Shaw, J. D., Park, T-Y, & Kim, E. (2013). A resource-based perspective on human capital losses, HRM investments, and organizational performance. *Strategic Management Journal*, 34, 572-589. doi:10.1002/smj.2025
- Sorenson, O., & Rogan, M. (2014). (When) do organizations have social capital? *Annual Review of Sociology*, 40, 261-280. doi:10.1146/annurev-soc-071913-043222

Span, S. (2013, August 1). ERE Media. Retrieved from ERE Media Website:

<https://www.tlnt.com/employee-retention-doesnt-just-happen-5-keys-to-a-clear-strategy/>

Stein, G. (2016, September 8). *Nine Tips for Managing Millennials*. Retrieved from Forbes.com

LLC: <https://www.forbes.com/sites/iese/2016/09/08/managing-millennials-nine-tips/print>

Sylvania Area Fire/EMS Advisory Board report February 17, 2006.

Sylvania Township Fire Department 2019. Administrative office

Taylor, J.C., & Stern, G.M. (2009). *The trouble with HR: An insider's guide to finding and keeping the best talent*. (pp.65-82). New York, New York: AMACOM

Todd, P., & Binns, J. (2013). Work-life balance: Is it now a problem for management? *Gender, Work and Organization*, 20, 219-231. doi:10.1111/j.1468-0432.2011.00564.x

United States Department of Labor (2016). Fair Labor Standards Act

Vecchi, C. (2014). *Evaluating part time retention within Clearcreek Fire District*. Ohio Fire Executive Program.

Wagner, T. (2009, July). Part-time employee turnover within the city of Fairfield Fire Department. Retrieved from

[http://www.ohiofirechiefs.com/aws/OFCA/asset\\_manager/get\\_file/20378](http://www.ohiofirechiefs.com/aws/OFCA/asset_manager/get_file/20378)

Yeh, Y-P. (2014). Exploring the impacts of employee advocacy on job satisfaction and organizational commitment: Case of Taiwanese airlines. *Journal of Air Transport Management*, 36, 94-100.

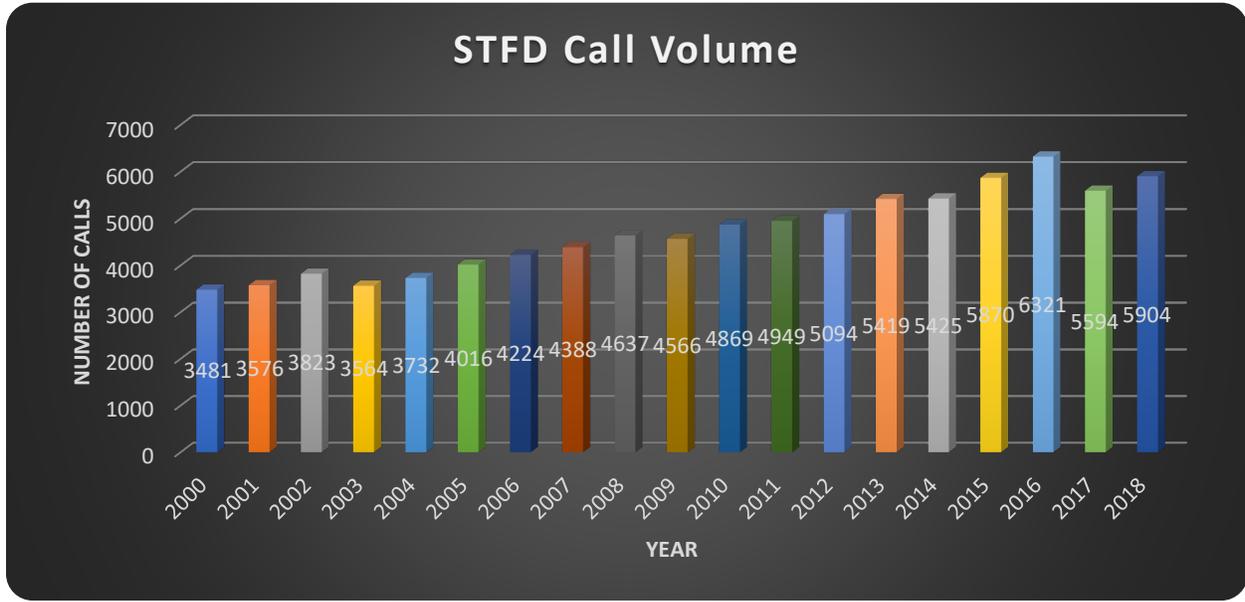
Zemke, R., Raines, C., and Filipczak, B. (2000) *Generations at Work* 46

Last Name, F. M. (Year). Article Title. *Journal Title*, Pages From - To.

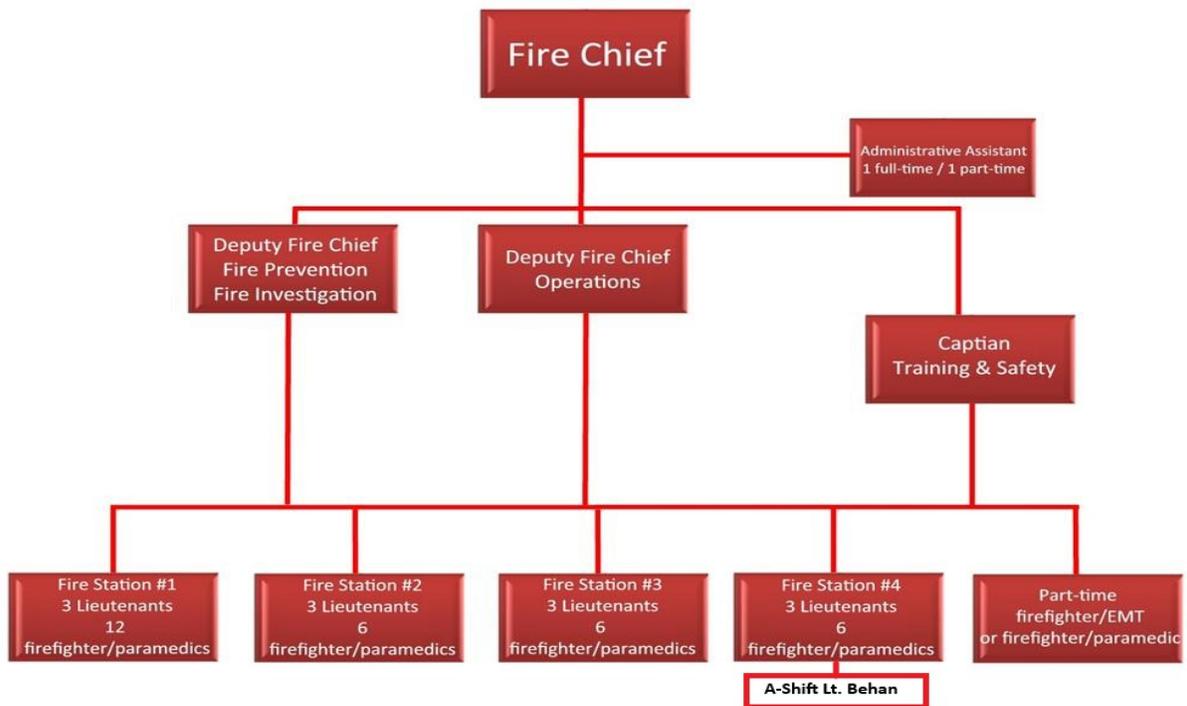
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**Appendix A- Tables and Graphs**

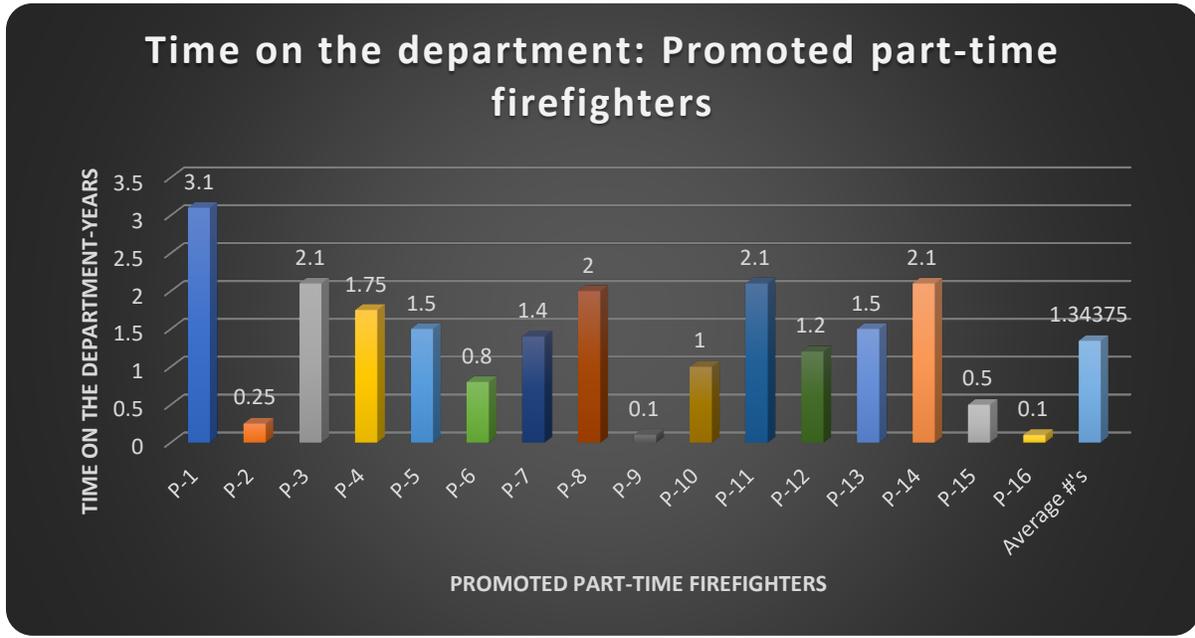
**FIG.1**



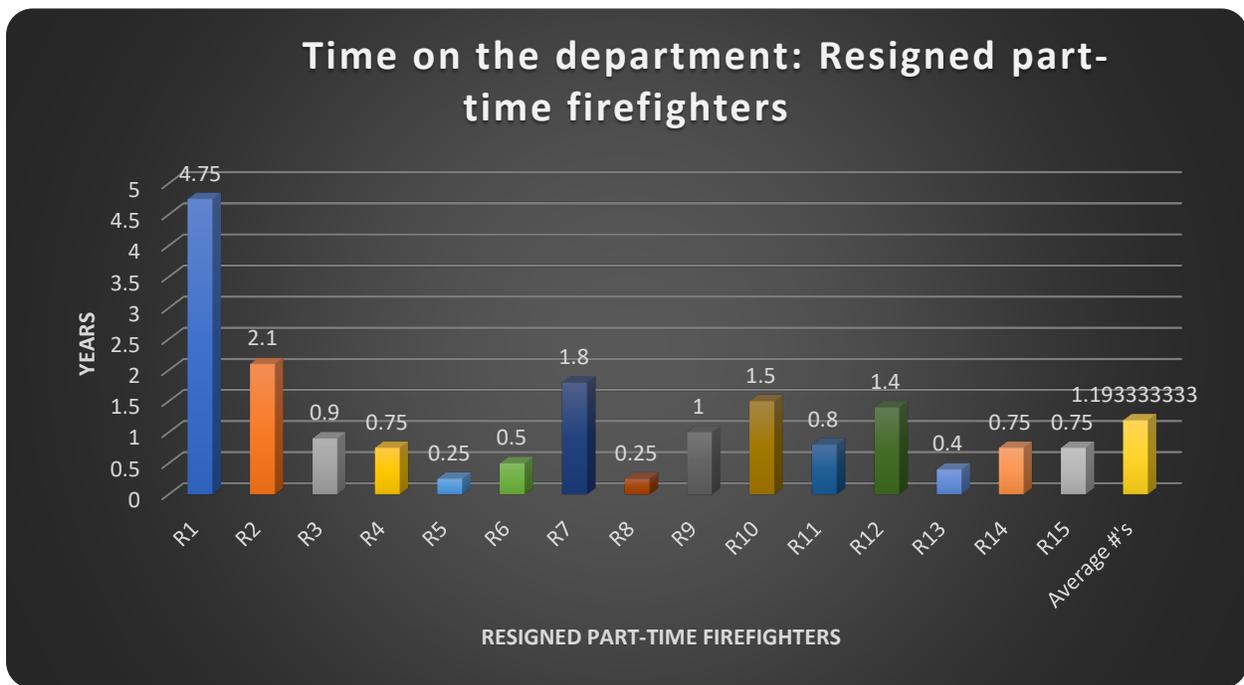
**FIG. 2**



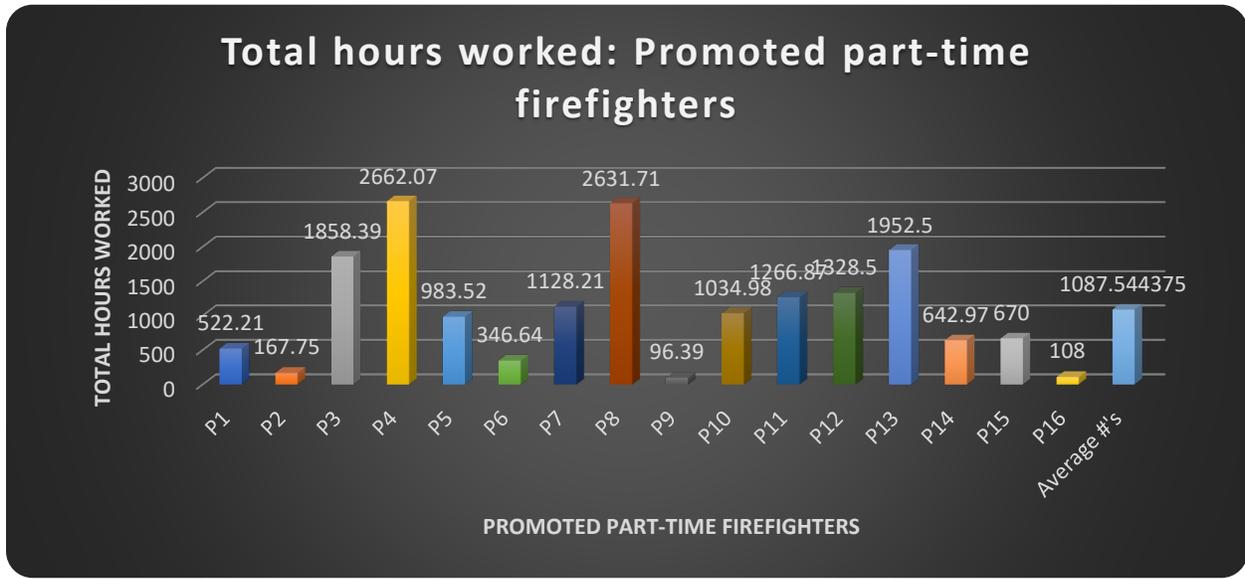
**FIG.3**



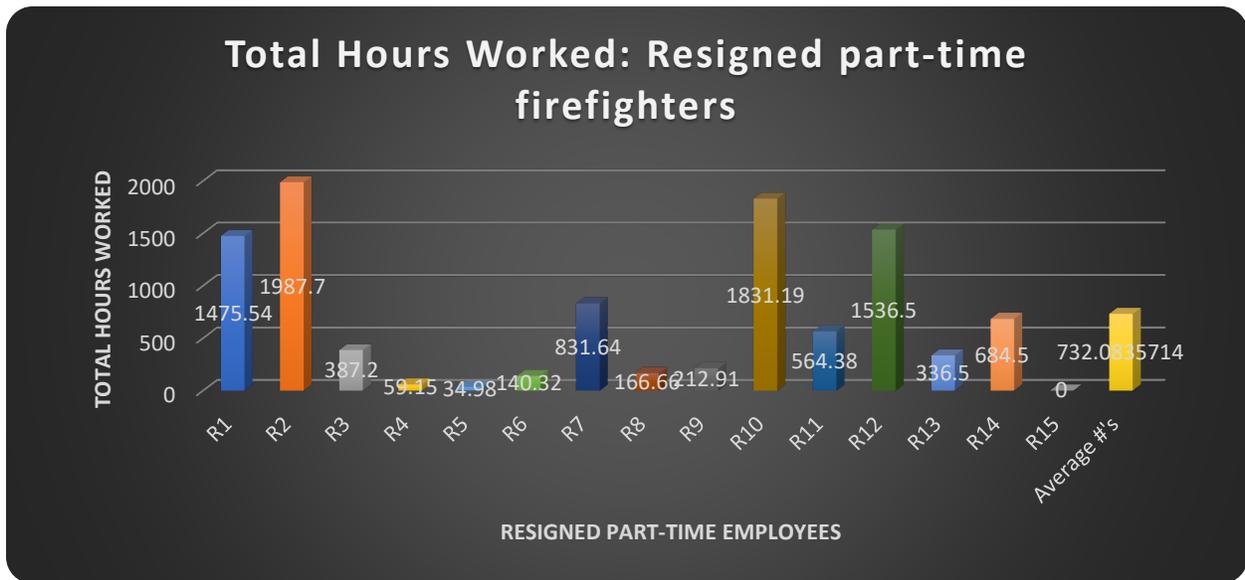
**FIG.4**



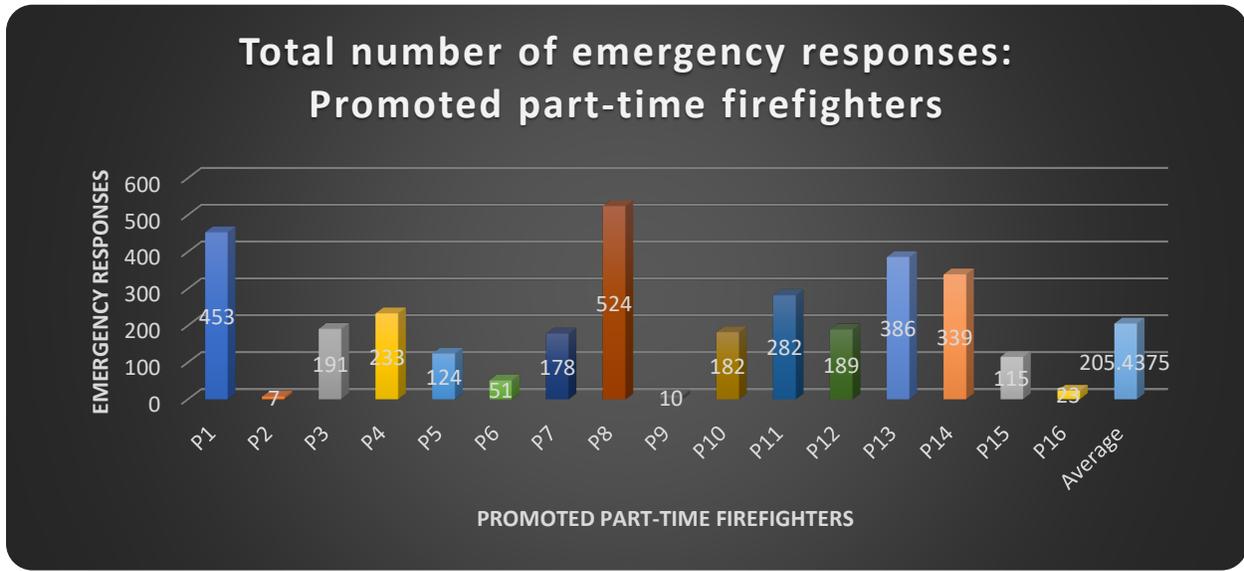
**FIG.5**



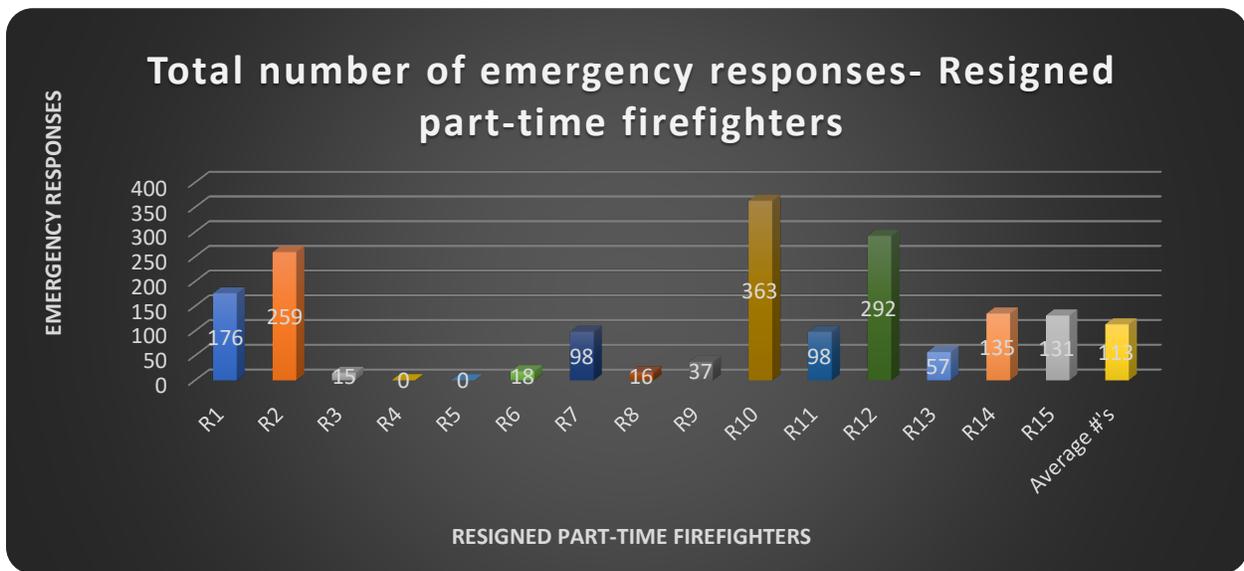
**FIG.6**



**FIG.7**



**FIG.8**



**APPENDIX B- INTERNAL SURVEY**

**1. How well did/do you feel that the STFD meets your individual needs?**

- Completely agrees
- Somewhat agrees
- Neutral
- Somewhat disagrees
- Completely disagrees

**2. Was/Is your Recruit Training Program experience as a part-time fighter for the STFD positive? Please explain.**

- Completely agrees
- Somewhat agrees
- Neutral
- Somewhat disagrees
- Completely disagrees

Explanation: \_\_\_\_\_

**3. What age group did you fit in when first employed as a part-time firefighter at the STFD?**

- 18-24
- 25-31
- 32-38
- 39+

**4. Please rank all of the factors that would positively affect your part-time employment with the Sylvania Township Fire Department. (rank in order with 1 being the primary factor).**

Wages and benefit package

External training

Work/Life balance

Opportunities for promotion to full-time status

Quality of Leadership/Administration

Workload

Proximity of work to home

Quality of equipment

Flexibility of schedule

**5. During the hiring process, did you desire to work part-time, or full-time?**

- Part-time
- Full-time

**6. Do you feel like the work culture of the STFD is aligned with you?**

- Completely agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Completely disagree

**7. What could another fire service organization offer to draw your interest and cause you to consider leaving STFD? (rank your answers with 1 being the most influential motivator)**

Full-time status

Pay/ Compensation structure

Location

Workload

Work/life balance

Schedule flexibility

**8. Have you been denied training opportunities that you have requested as a part-time firefighter?**

- Yes
- No

**9. Do you feel you were valued and treated fairly by the Supervisors/Administration of the STFD?**

- Completely agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Completely disagree

**10. How engaged are you currently within STFD?**

- Highly engaged (accept most work offerings, participate on committee(s) or teams)
- Somewhat engaged
- Neutral
- Somewhat disengaged
- Disengaged (decline most work offerings, no participation on committee(s) or teams)

**1. Is your department currently having issues with retaining part-time firefighters?**

- Yes
- No

**2. What is the average retention of your part-time firefighters who were hired after 2010?**

- 0-2 years
- 2-4 years
- 4-6 years
- 6+years

**3. Has your department experienced increased financial expenditure to hire additional part-time personnel? If so, check all financial areas that apply?**

- Hiring costs
- Equipping costs
- Training costs
- Overtime costs
- Wage increases to remain competitive
- Incentives (please specify)

**4. When hiring Full-time firefighters, what is your current process?**

- Hire exclusively from your Part-time list.
- Hire exclusively using entrance exam process.
- Hire exclusively using an entrance exam process, where the internal Part-time firefighters will receive bonus points on the exam if they pass.
- Other (please specify)

**5. Does your department have a formal mentoring/employee development program for part-time firefighters?**

- Yes
- No

**6. What successful retention strategies/ initiatives has your department done to help retain part-time firefighters (check all that apply)?**

- Increased pay/compensation
- Longevity benefits
- Education incentives
- Sick leave
- Bonus pay
- Health insurance
- Life or disability insurance
- Holiday pay
- None
- Other (please specify)

**7. Do either you, or your Human Resource department conduct exit interviews for Part-time firefighters that voluntarily resign from your department?**

- Yes
- No

**8. Have the exit interviews proved helpful in identifying any trends regarding the voluntary resignations? If so, note the trends below.**

- Yes
- No
- Identified trends (please specify)

**9. Do you feel your department will have, or continue to have part-time firefighter retention problems in the next 5 years?**

- Yes, we will continue to have increased Part-time firefighter retention problems.
- Yes, but our retention trends have been improving over the past three years.
- No, we don't currently have firefighter retention problems.
- No, we will plan on discontinuing use of Part-time firefighters, and instead use more Volunteer firefighters.
- No, we will plan on discontinuing use of Part-time firefighters, and instead use more Full-time firefighters.

**10. Is your fire department a certified training center that is able to train new recruits, and certify them to FF1 or FF2?**

- Yes
- No

**Appendix D- Internal Survey Results**

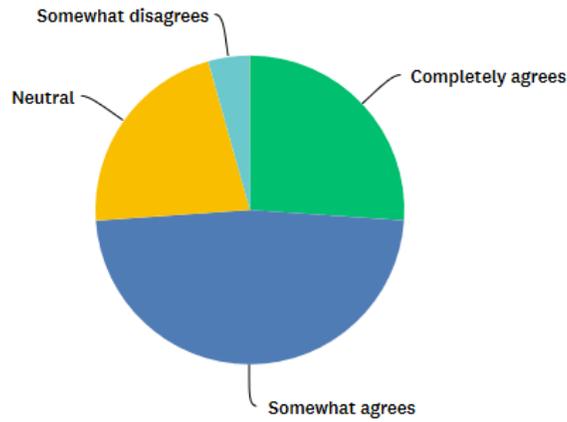
**Fig.1**

Q1

 [Customize](#) [Save as](#) 

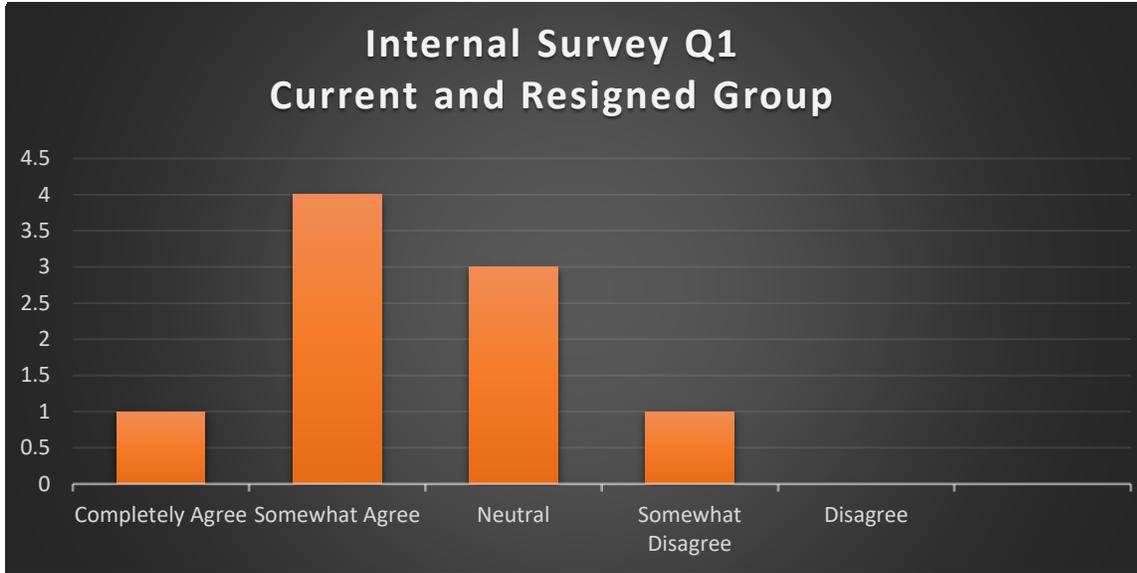
How well did/do you feel that the STFD meets your individual needs?

Answered: 23 Skipped: 0

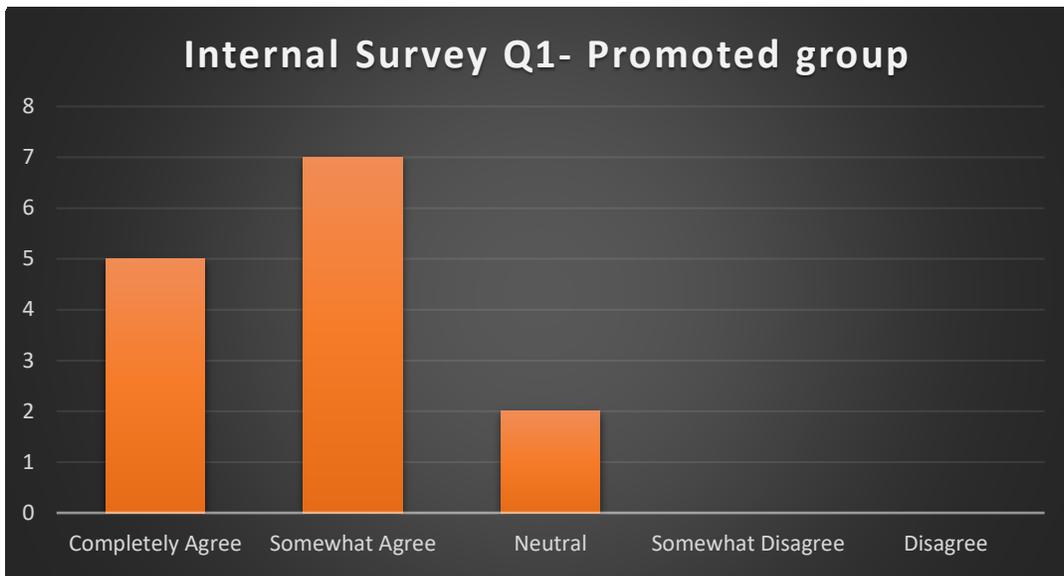


ANSWER CHOICES	RESPONSES	
▼ Completely agrees	26.09%	6
▼ Somewhat agrees	47.83%	11
▼ Neutral	21.74%	5
▼ Somewhat disagrees	4.35%	1
▼ Completely disagrees	0.00%	0
<b>TOTAL</b>		<b>23</b>

**Fig.2**



**Fig.3**



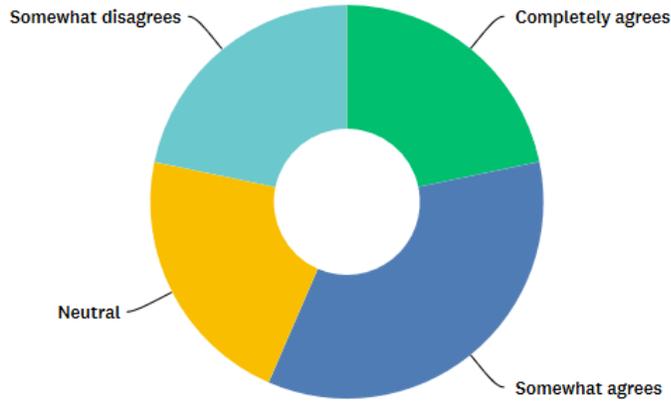
**Fig.4**

Q2

 [Customize](#) [Save as](#) 

Was/Is your Recruit Training Program experience as a part-time fighter for the STFD positive? Please explain.

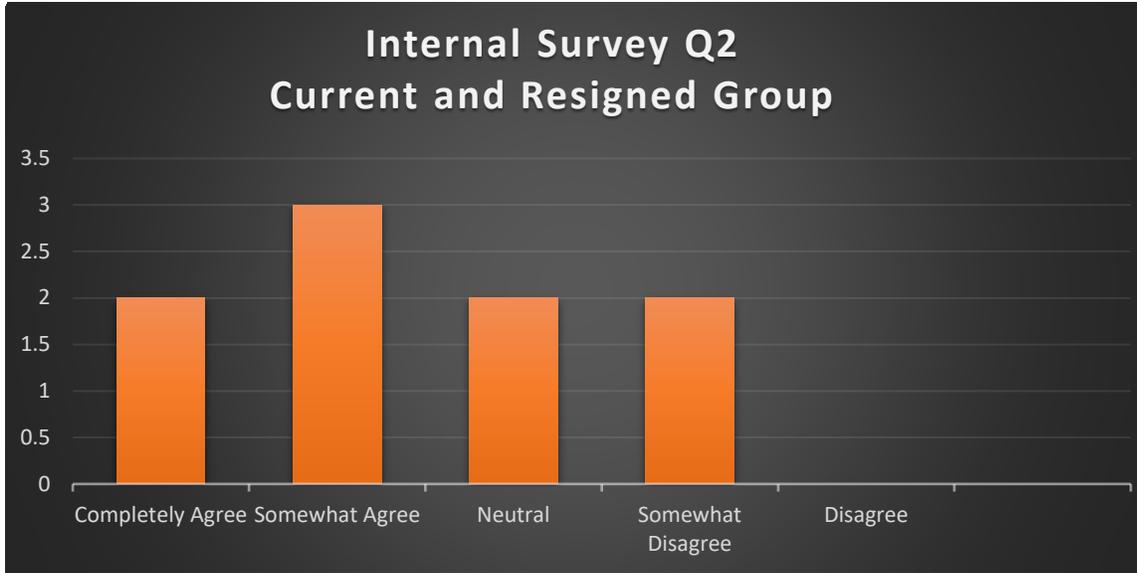
Answered: 23 Skipped: 0



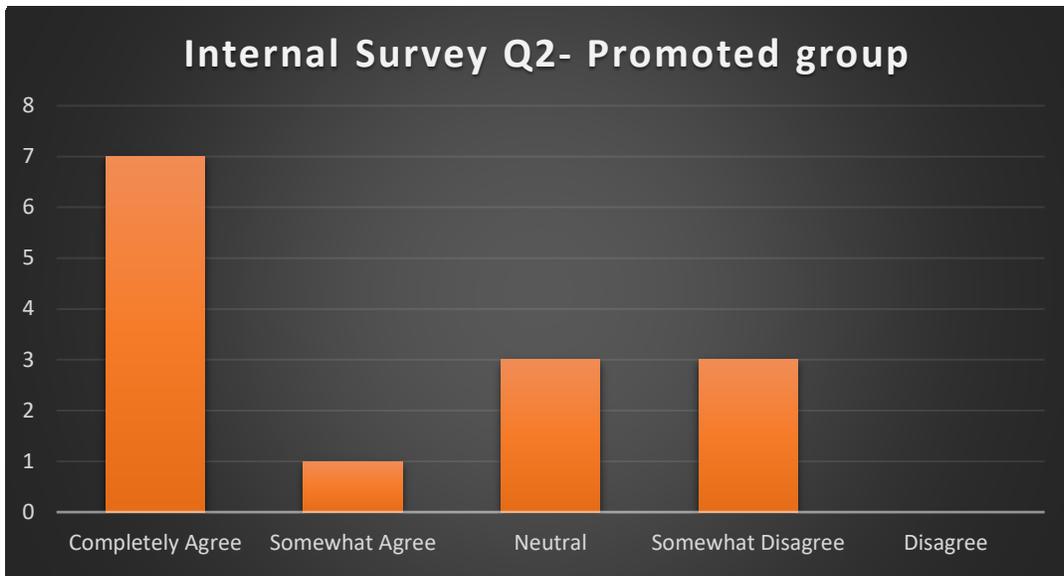
ANSWER CHOICES	RESPONSES
▼ Completely agrees	21.74% 5
▼ Somewhat agrees	34.78% 8
▼ Neutral	21.74% 5
▼ Somewhat disagrees	21.74% 5
▼ Completely disagrees	0.00% 0
<b>TOTAL</b>	<b>23</b>

[Comments \(16\)](#)

**Fig.5**



**Fig.6**



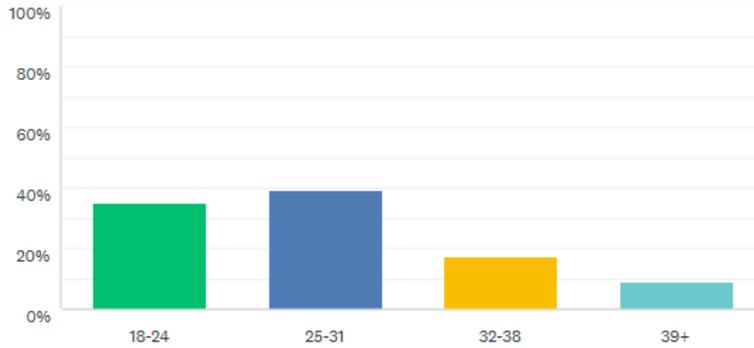
**Fig.7**

Q3

 [Customize](#) [Save as](#) 

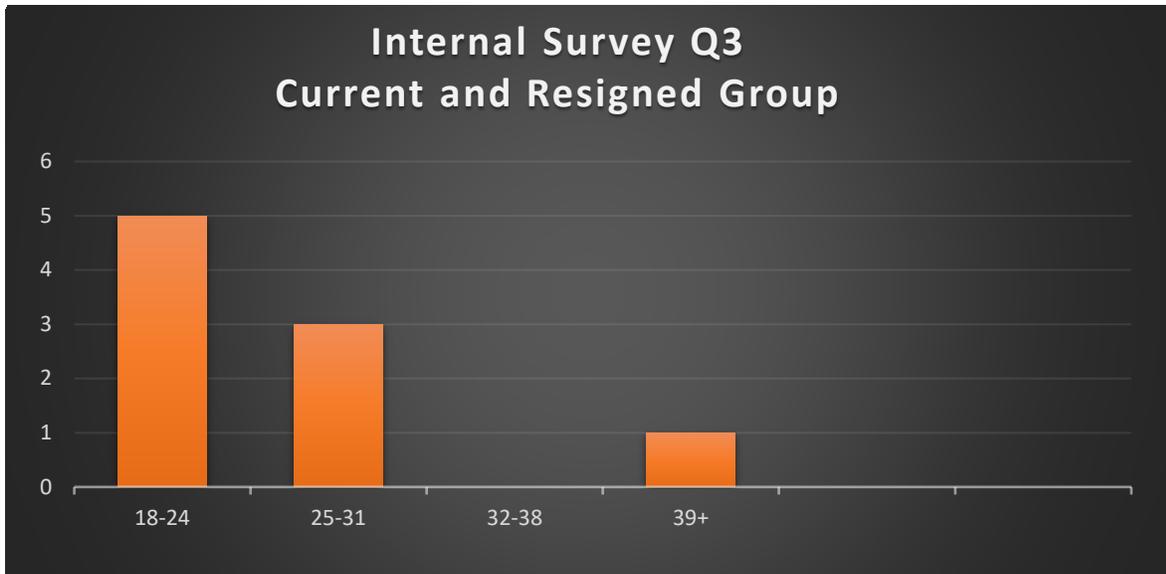
What age group did you fit in when first employed as a part-time firefighter at the STFD?

Answered: 23 Skipped: 0

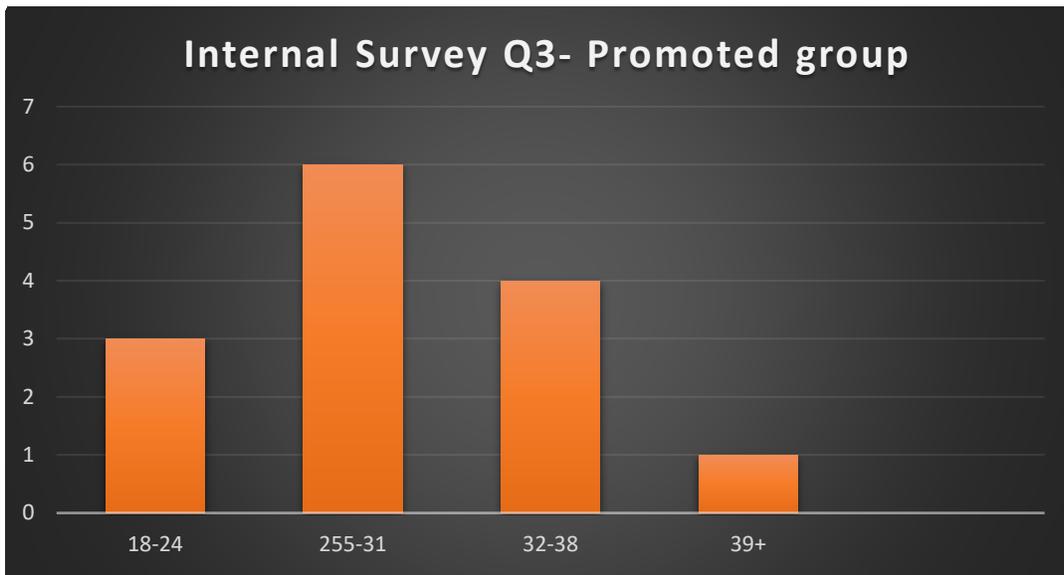


ANSWER CHOICES	RESPONSES
▼ 18-24	34.78% 8
▼ 25-31	39.13% 9
▼ 32-38	17.39% 4
▼ 39+	8.70% 2
<b>TOTAL</b>	<b>23</b>

**Fig.8**



**Fig.9**



**Fig.10**

Q4

Customize Save as

Please rank all of the factors that would positively affect your part-time employment with the Sylvania Township Fire Department. (rank in order with 1 being the primary factor).

Answered: 23 Skipped: 0

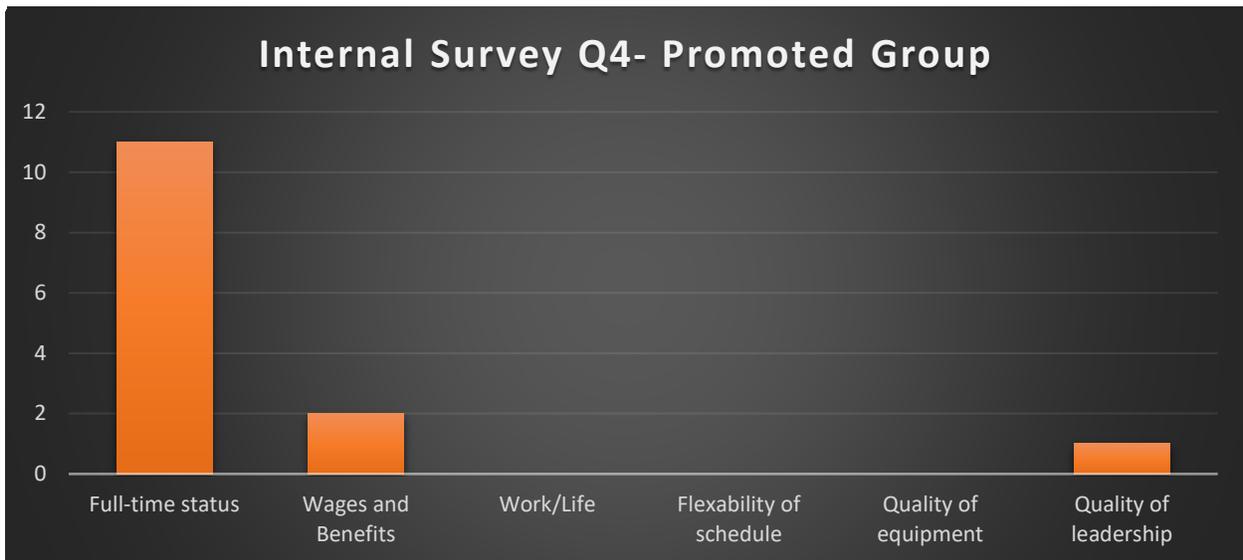


	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
Opportunities for promotion to full-time status	60.87% 14	21.74% 5	0.00% 0	4.35% 1	8.70% 2	0.00% 0	0.00% 0	4.35% 1	0.00% 0	23	8.00
Wages and benefit package	13.04% 3	30.43% 7	26.09% 6	13.04% 3	0.00% 0	8.70% 2	4.35% 1	4.35% 1	0.00% 0	23	6.78
Quality of Leadership/Administration	9.09% 2	31.82% 7	13.64% 3	18.18% 4	4.55% 1	9.09% 2	9.09% 2	0.00% 0	4.55% 1	22	6.32
Flexibility of schedule	9.09% 2	9.09% 2	13.64% 3	9.09% 2	22.73% 5	4.55% 1	4.55% 1	13.64% 3	13.64% 3	22	4.91
Work/Life balance	4.35% 1	4.35% 1	21.74% 5	21.74% 5	13.04% 3	8.70% 2	17.39% 4	4.35% 1	4.35% 1	23	5.22
Quality of equipment	4.55% 1	0.00% 0	0.00% 0	9.09% 2	27.27% 6	18.18% 4	13.64% 3	18.18% 4	9.09% 2	22	3.91
External training	0.00% 0	0.00% 0	13.04% 3	13.04% 3	13.04% 3	8.70% 2	8.70% 2	30.43% 7	13.04% 3	23	3.50
Workload	0.00% 0	0.00% 0	9.09% 2	0.00% 0	9.09% 2	31.82% 7	27.27% 6	9.09% 2	13.64% 3	22	3.50
Proximity of work to home	0.00% 0	4.55% 1	4.55% 1	13.64% 3	0.00% 0	9.09% 2	13.64% 3	13.64% 3	40.91% 9	22	3.50

Fig.11



**Fig. 12**



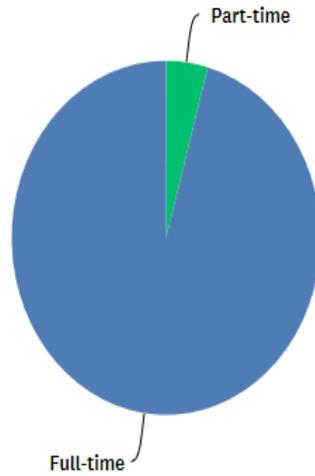
**Fig.13**

Q5

 [Customize](#) [Save as](#) 

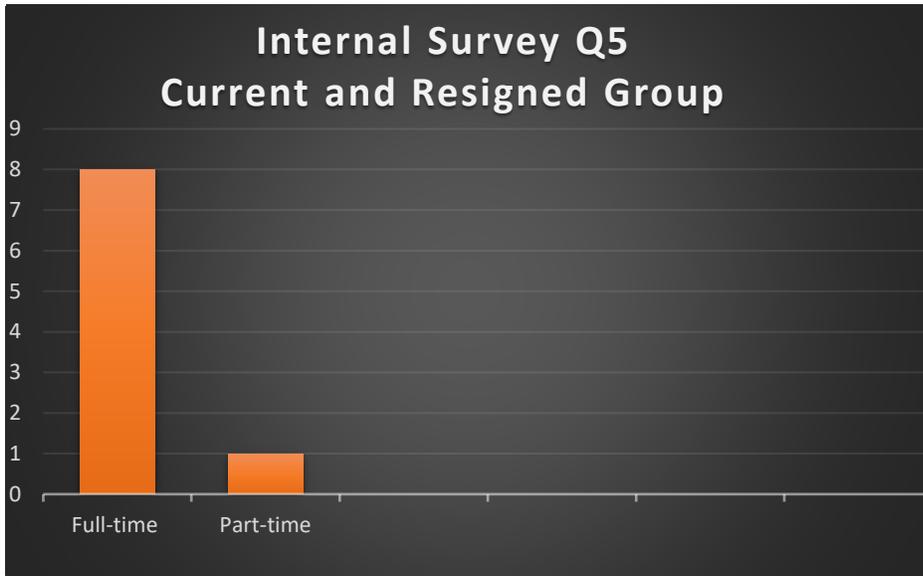
During the hiring process, did you desire to work part-time, or full-time?

Answered: 23 Skipped: 0

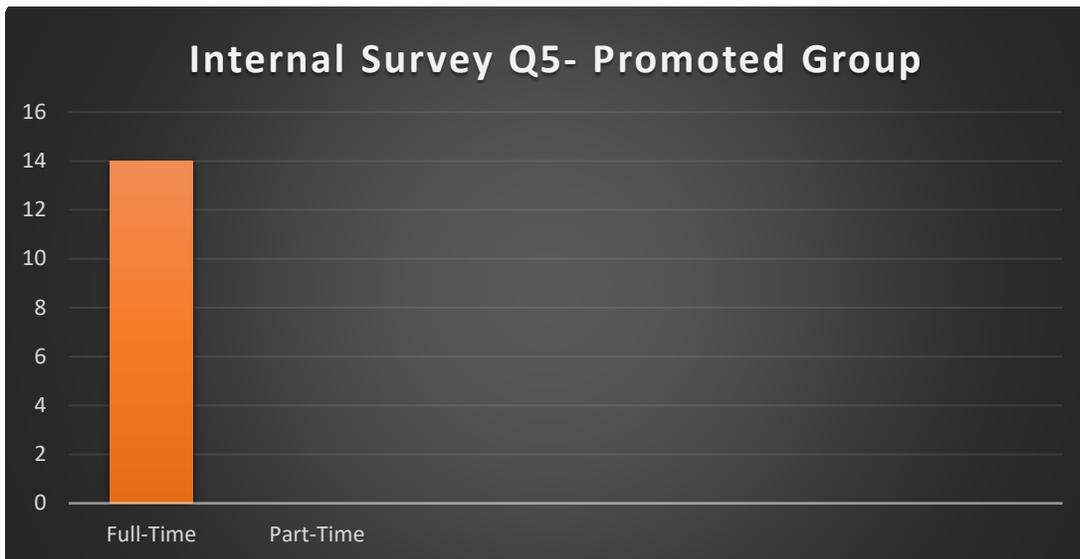


ANSWER CHOICES	RESPONSES	
▼ Part-time	4.35%	1
▼ Full-time	95.65%	22
<b>TOTAL</b>		<b>23</b>

**Fig.14**



**Fig.15**



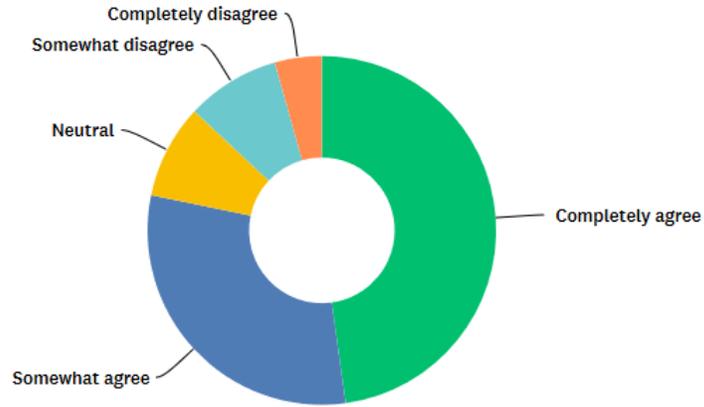
**Fig. 16**

Q6

 [Customize](#) [Save as](#) 

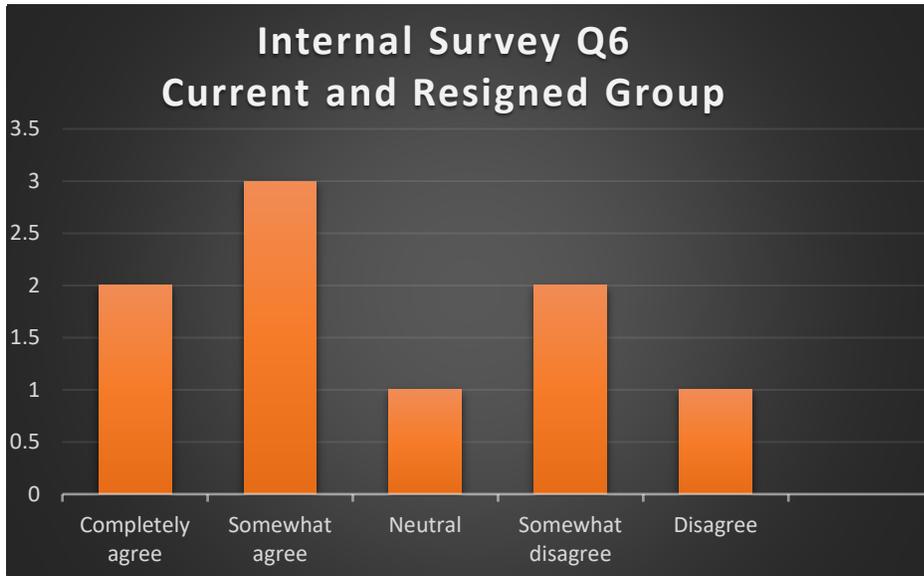
Do you feel like the work culture of the STFD is aligned with you?

Answered: 23 Skipped: 0

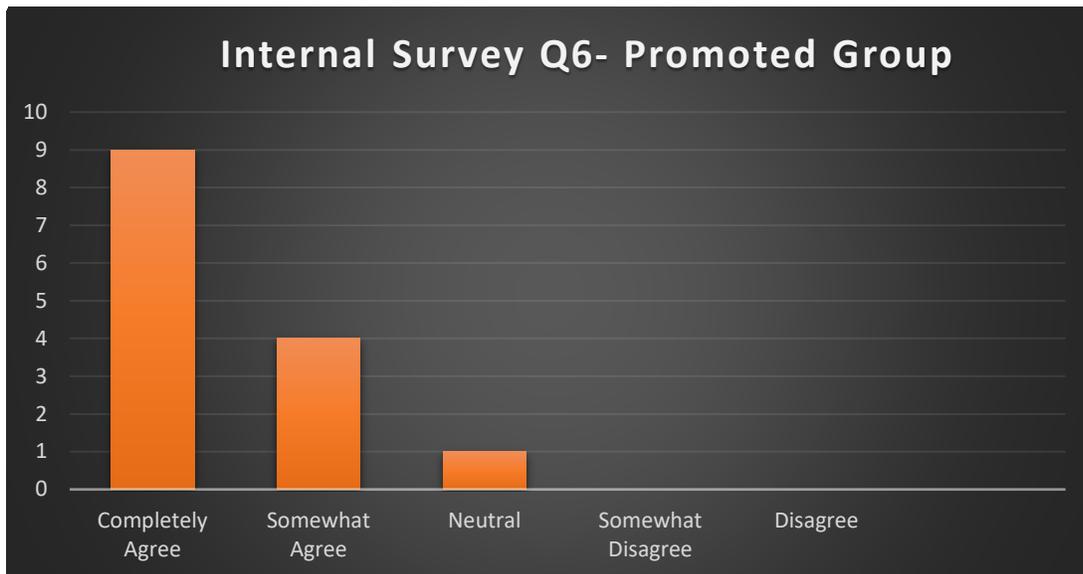


ANSWER CHOICES	RESPONSES
Completely agree	47.83% 11
Somewhat agree	30.43% 7
Neutral	8.70% 2
Somewhat disagree	8.70% 2
Completely disagree	4.35% 1
<b>TOTAL</b>	<b>23</b>

**Fig.17**



**Fig.18**



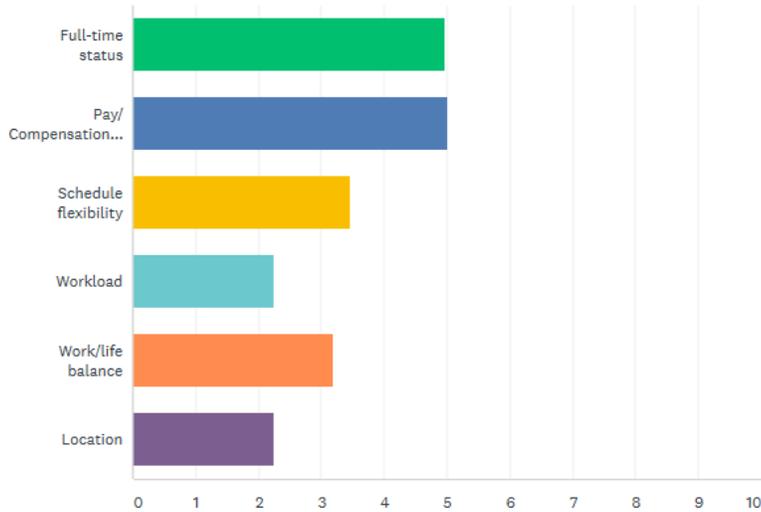
**Fig.19**

Q7

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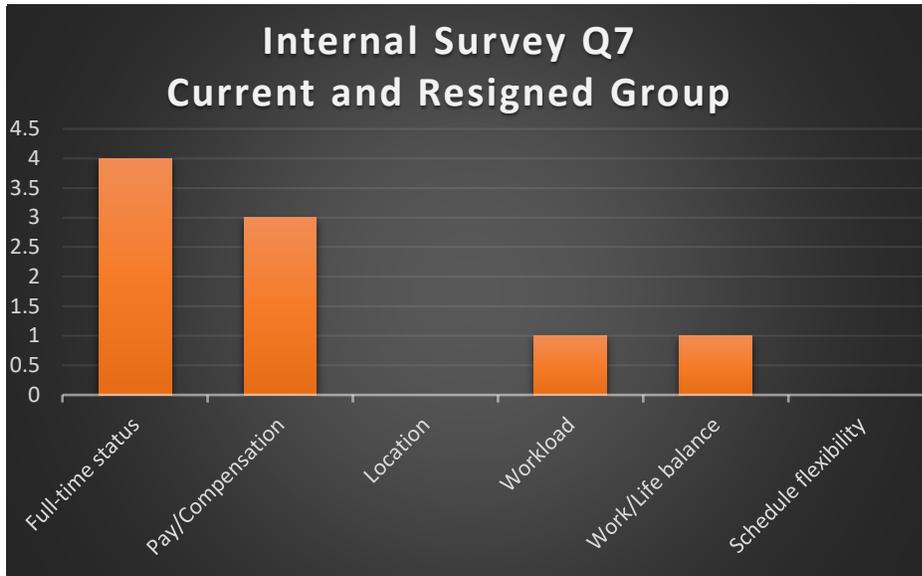
What could another fire service organization offer to draw your interest and cause you to consider leaving STFD? (rank your answers with 1 being the most influential motivator)

Answered: 23 Skipped: 0

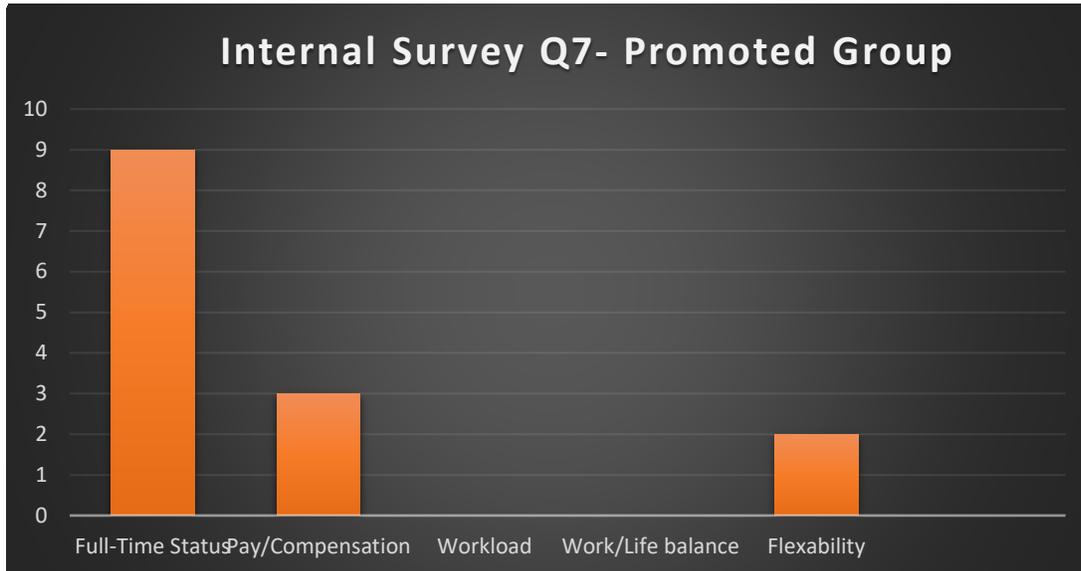


	1	2	3	4	5	6	TOTAL	SCORE
Full-time status	56.52% 13	21.74% 5	0.00% 0	13.04% 3	0.00% 0	8.70% 2	23	4.96
Pay/Compensation structure	27.27% 6	45.45% 10	27.27% 6	0.00% 0	0.00% 0	0.00% 0	22	5.00
Schedule flexibility	9.09% 2	18.18% 4	18.18% 4	31.82% 7	9.09% 2	13.64% 3	22	3.45
Workload	4.55% 1	4.55% 1	4.55% 1	18.18% 4	31.82% 7	36.36% 8	22	2.23
Work/life balance	4.55% 1	9.09% 2	31.82% 7	18.18% 4	27.27% 6	9.09% 2	22	3.18
Location	0.00% 0	0.00% 0	18.18% 4	18.18% 4	31.82% 7	31.82% 7		

**Fig.20**



**Fig.21**



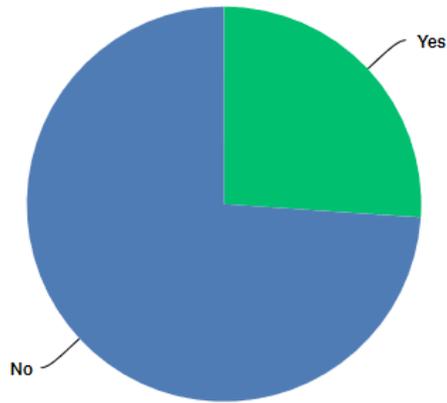
**Fig.22**

Q8

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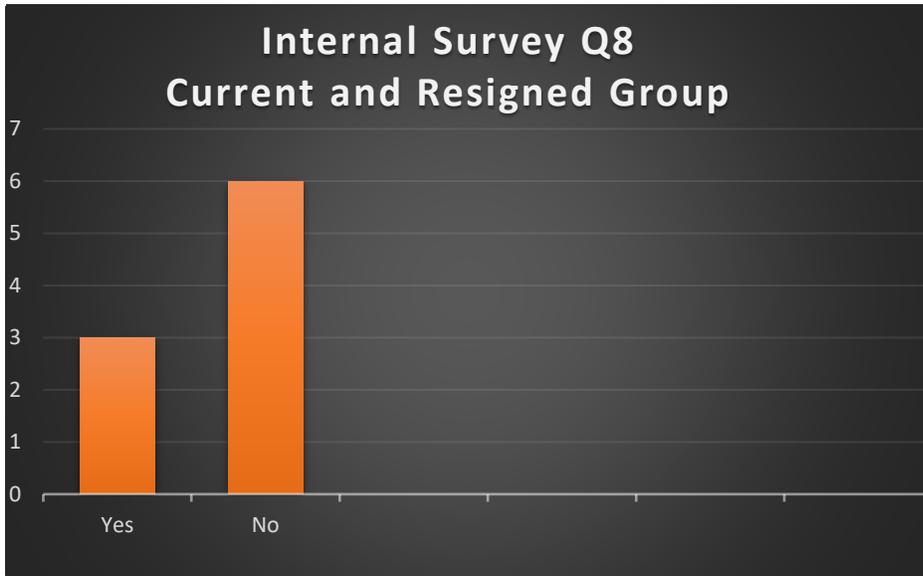
Have you been denied training opportunities that you have requested as a part-time firefighter?

Answered: 23 Skipped: 0

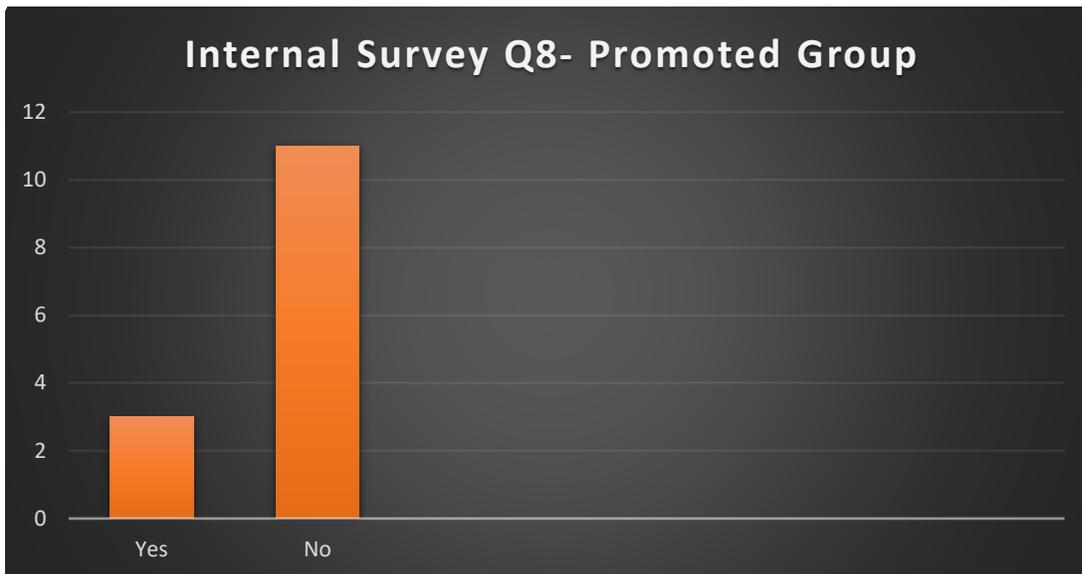


ANSWER CHOICES	RESPONSES	
Yes	26.09%	6
No	73.91%	17
<b>TOTAL</b>		<b>23</b>

**Fig.23**



**Fig.24**



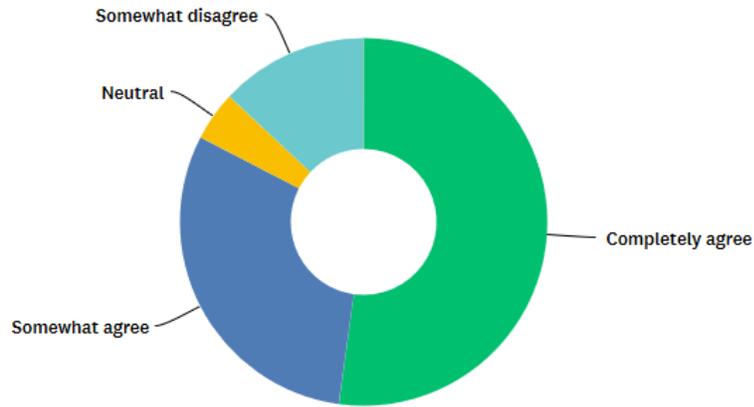
**Fig.25**

Q9

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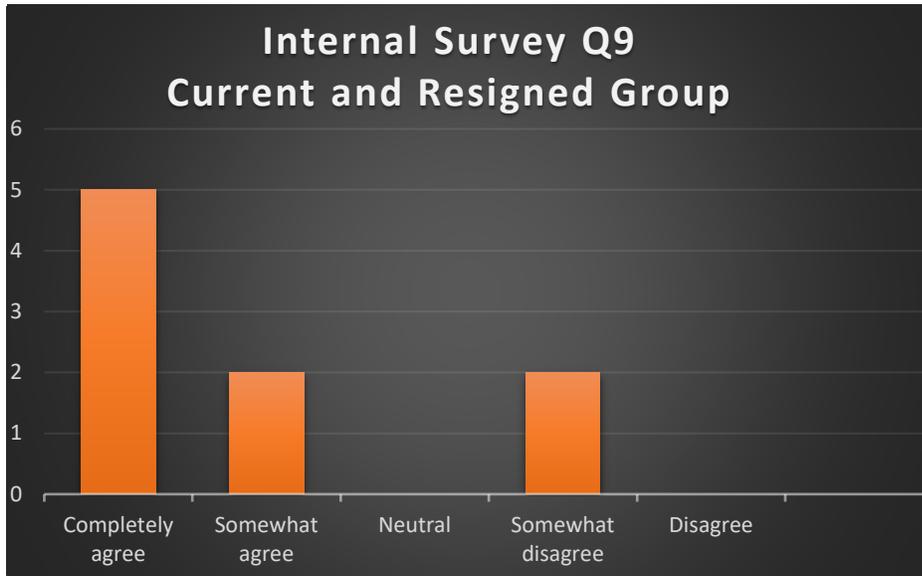
Do you feel you were valued and treated fairly by the Supervisors/Administration of the STFD?

Answered: 23 Skipped: 0

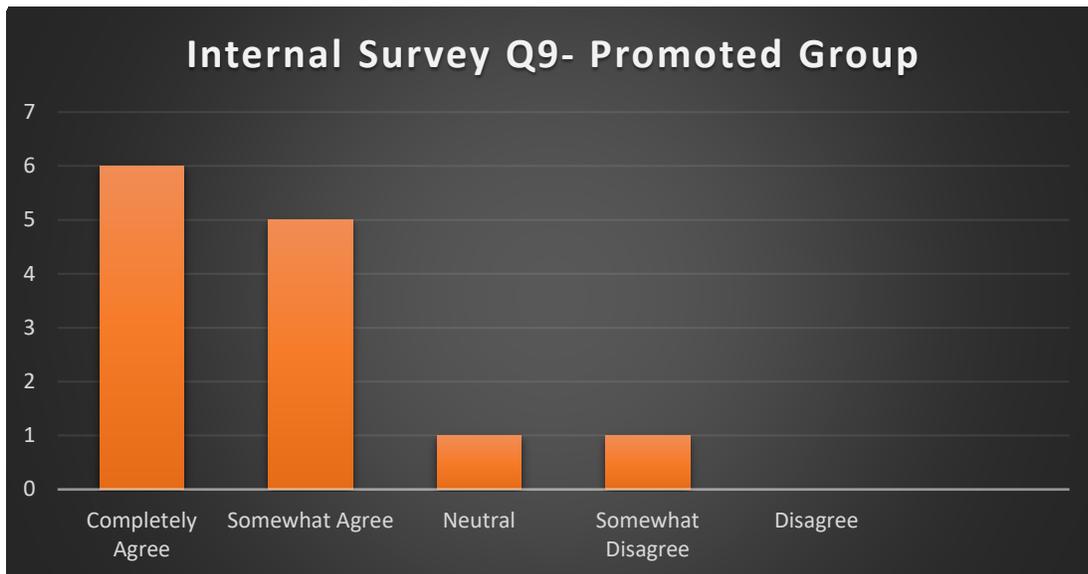


ANSWER CHOICES	RESPONSES	
▼ Completely agree	52.17%	12
▼ Somewhat agree	30.43%	7
▼ Neutral	4.35%	1
▼ Somewhat disagree	13.04%	3
▼ Completely disagree	0.00%	0
<b>TOTAL</b>		<b>23</b>

**Fig.26**



**Fig.27**



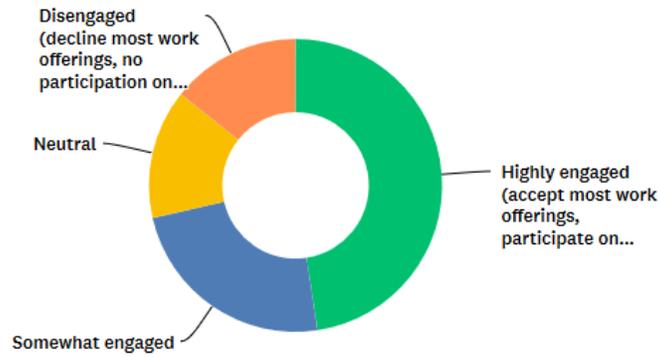
**Fig.28**

Q10

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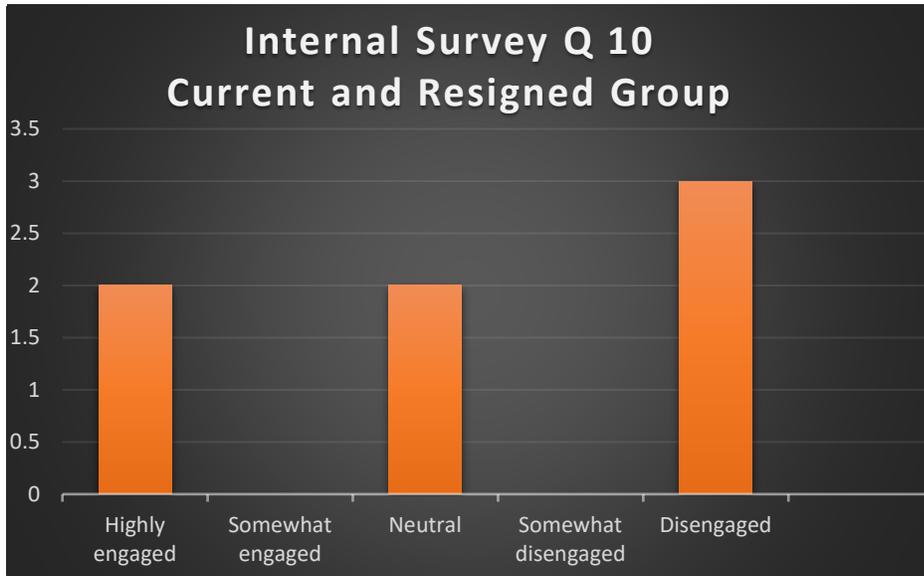
How engaged are you currently within STFD?

Answered: 21 Skipped: 2

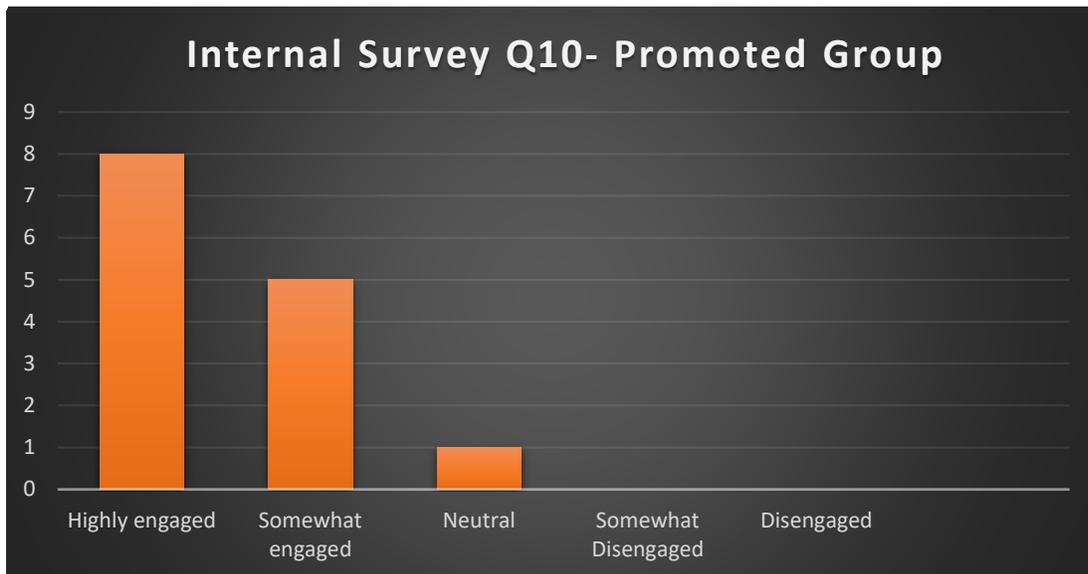


ANSWER CHOICES	RESPONSES	
Highly engaged (accept most work offerings, participate on committee(s) or teams)	47.62%	10
Somewhat engaged	23.81%	5
Neutral	14.29%	3
Somewhat disengaged	0.00%	0
Disengaged (decline most work offerings, no participation on committee(s) or teams)	14.29%	3
<b>TOTAL</b>		<b>21</b>

**Fig.29**



**Fig.30**



### Appendix E- External Survey Results

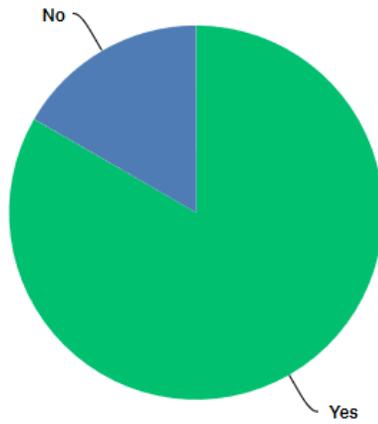
**Fig.1**

Q1

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Is your department currently having issues with retaining part-time firefighters?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES
Yes	83.33% 10
No	16.67% 2
<b>TOTAL</b>	<b>12</b>

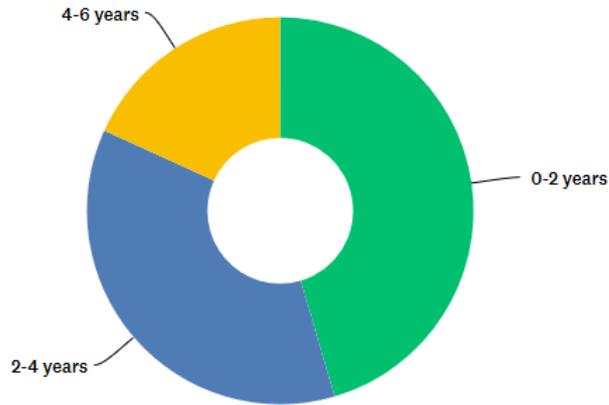
**Fig.2**

Q2

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What is the average retention of your part-time firefighters who were hired after 2010?

Answered: 11 Skipped: 1



ANSWER CHOICES	RESPONSES
0-2 years	45.45% 5
2-4 years	36.36% 4
4-6 years	18.18% 2
6+years	0.00% 0
<b>TOTAL</b>	<b>11</b>

**Fig. 3**

Q3

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Has your department experienced increased financial expenditure to hire additional part-time personnel? If so, check all financial areas that apply?

Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES
▼ Equipping costs	80.00% 8
▼ Wage increases to remain competitive	80.00% 8
▼ Training costs	50.00% 5
▼ Hiring costs	30.00% 3
▼ Overtime costs	20.00% 2
▼ Incentives (please specify) <a href="#">Responses</a>	20.00% 2

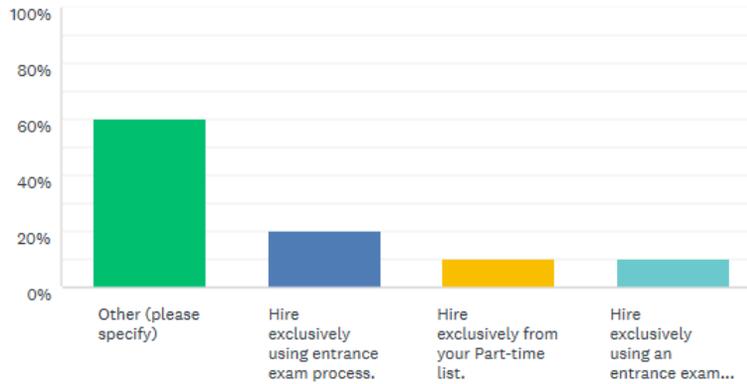
**Fig. 4**

Q4

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When hiring Full-time firefighters, what is your current process?

Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES
Other (please specify)	Responses 60.00% 6
Hire exclusively using entrance exam process.	20.00% 2
Hire exclusively from your Part-time list.	10.00% 1
Hire exclusively using an entrance exam process, where the internal Part-time firefighters will receive bonus points on the exam if they pass.	10.00% 1
<b>TOTAL</b>	<b>10</b>

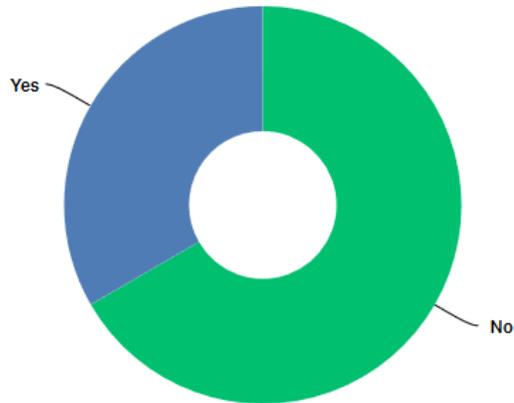
**Fig. 5**

Q5

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Does your department have a formal mentoring/employee development program for part-time firefighters?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ No	66.67%	8
▼ Yes	33.33%	4
<b>TOTAL</b>		<b>12</b>

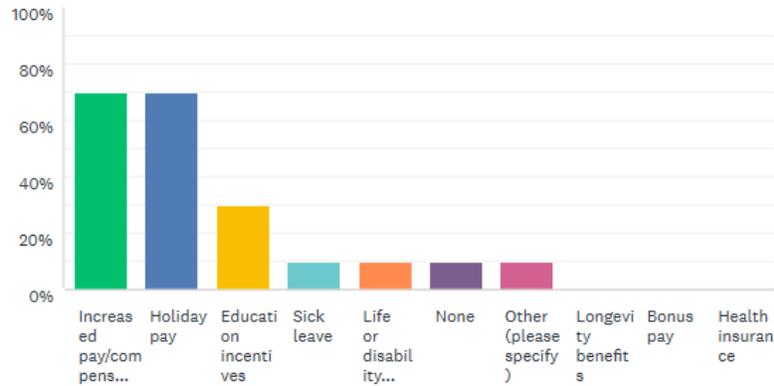
**Fig. 6**

Q6


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What successful retention strategies/ initiatives has your department done to help retain part-time firefighters (check all that apply)?

Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES
▼ Increased pay/compensation	70.00% 7
▼ Holiday pay	70.00% 7
▼ Education incentives	30.00% 3
▼ Sick leave	10.00% 1
▼ Life or disability insurance	10.00% 1
▼ None	10.00% 1
▼ Other (please specify) <a href="#">Responses</a>	10.00% 1
▼ Longevity benefits	0.00% 0
▼ Bonus pay	0.00% 0
▼ Health insurance	0.00% 0
<b>Total Respondents: 10</b>	

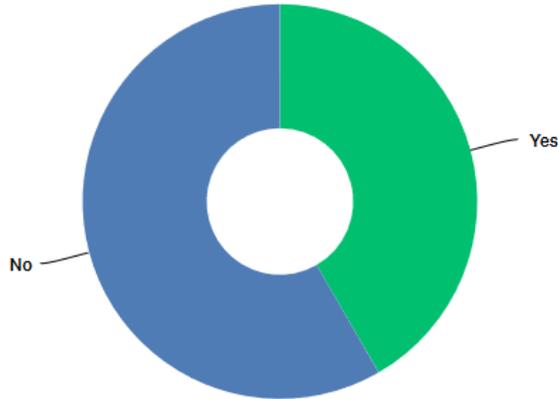
**Fig. 7**

Q7

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Do either you, or your Human Resource department conduct exit interviews for Part-time firefighters that voluntarily resign from your department?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Yes	41.67%	5
▼ No	58.33%	7
<b>TOTAL</b>		<b>12</b>

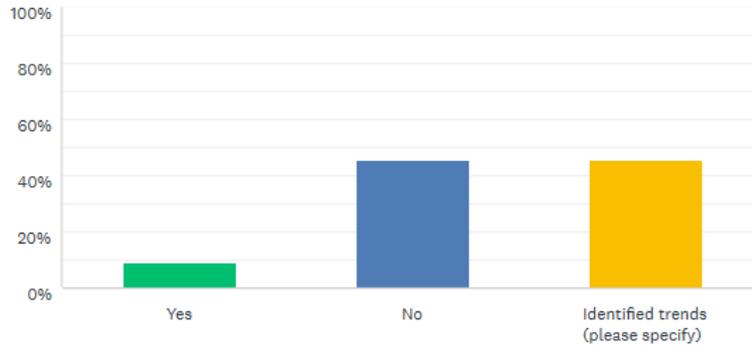
**Fig. 8**

Q8

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Have the exit interviews proved helpful in identifying any trends regarding the voluntary resignations? If so, note the trends below.

Answered: 11 Skipped: 1



ANSWER CHOICES	RESPONSES
▼ Yes	9.09% 1
▼ No	45.45% 5
▼ Identified trends (please specify)	<a href="#">Responses</a> 45.45% 5
<b>TOTAL</b>	<b>11</b>

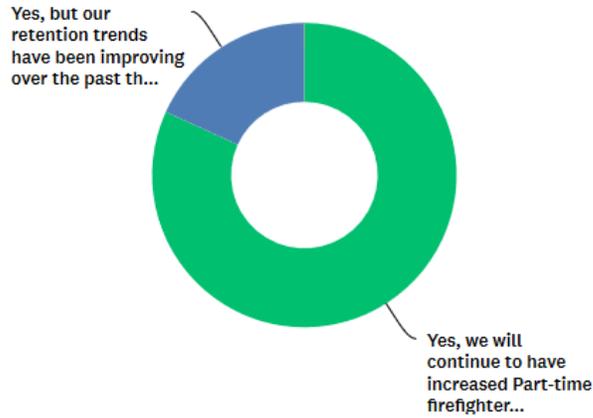
**Fig. 9**

Q9

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Do you feel your department will have, or continue to have part-time firefighter retention problems in the next 5 years?

Answered: 11 Skipped: 1



ANSWER CHOICES	RESPONSES
▼ Yes, we will continue to have increased Part-time firefighter retention problems.	81.82% 9
▼ Yes, but our retention trends have been improving over the past three years.	18.18% 2
▼ No, we don't currently have firefighter retention problems.	0.00% 0
▼ No, we will plan on discontinuing use of Part-time firefighters, and instead use more Volunteer firefighters.	0.00% 0
▼ No, we will plan on discontinuing use of Part-time firefighters, and instead use more Full-time firefighters.	0.00% 0
<b>TOTAL</b>	<b>11</b>

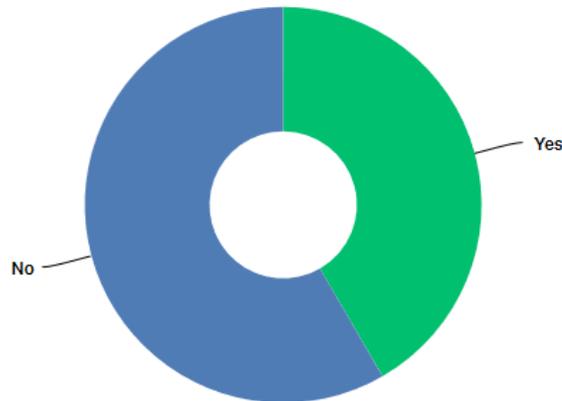
**Fig. 10**

Q10

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Is your fire department a certified training center that is able to train new recruits, and certify them to FF1 or FF2?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	41.67%	5
No	58.33%	7
<b>TOTAL</b>		<b>12</b>

**Appendix F- Ohio Fire Departments surveyed**

Ohio Fire Departments surveyed - (25) total – (12) responded:

**Lucas County**: Jerusalem Twp. Fire Department, Monclova Twp. Fire / Rescue Dept, Richfield Township Fire Department, Oregon Fire & Rescue, Springfield Twp. Fire Department, Whitehouse Fire Department, Washington Twp. Fire Department

**Wood County**: Central Joint Fire District, Wayne Vol Fire Department, Rossford Fire & Rescue, Troy Twp. Fire & EMS, Perrysburg Fire Division, Lake Township Fire Department

**Fulton County**: Delta Community Fire Department, Archbold-German Twp. Fire Department, Wauseon Fire Department

**Henry County**: Napoleon Fire/Rescue, Liberty Washington Twp. Fire Department, Ridgeville Twp. Vol Fire Dept, Holgate Vol. Fire Department

**Ottawa County**: Danbury Township Fire Department, Allen-Clay Joint Fire District, Carroll Twp. Fire Department, Rocky Ridge Vol Fire Department, Catawba Island Vol. Fire Department