

24/48 to 48/96: is it worth it

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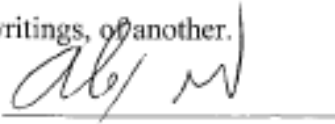
Greensboro Fire Department, North Carolina

24/48 to 48/96 is it worth it

**Certification Statement**

I hereby certify that 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.

Signed: \_\_\_\_\_

A handwritten signature in black ink, appearing to be 'Aly M', is written over a horizontal line.

### Abstract

The problem is the GFD did not know the impacts on the organization from changing from the current 24/48 work schedule to a 48/96 work schedule. The purpose of this research was to determine the organizational impacts of the GFD changing from the current 24/48 work schedule to a 48/96 work schedule. The author utilized descriptive research to determine the benefits and problems with the 48/96 work schedule. The author developed four research questions that were used to collect data on how this schedule would affect the service delivery, potential effect on the morale of the firefighters, potential effects on the administration ability to lead the department, the effects on the overtime budget.

The author's research had determined support with a schedule change to 48/96. While the author did find some concerns with this schedule that included trade time, and overtime policies on some hours worked. The author's research discovered that some scheduling of training activities would cause some complications with the 48/96 work schedule.

The author utilized literature review from previous authors that enabled the author to develop data gathering instruments that are specific to the needs of the Greensboro Fire Department (GFD). The author utilized a questionnaire, survey and an interview to collect the data needed for this project. The author then compared the data effect by the literature review. The results and recommendations from this study include further research on scheduling training, Trade Policy, overtime hours worked, and for the Greensboro's Payroll department on the conversion from a 27-day work cycle to a 28-day work cycle. The author recommends after the additional research is complete that the GFD conducts a 1-year trial period of the 48/96 work schedule.

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## 24/48 to 48/96

The mission of the Greensboro Fire Department (GFD) is to serve people and has five operating principles: safety, courtesy, excellence service, efficiency, and continuous improvement (Greensboro Fire Department Planning Section, 2011). The operating principles should be the main driving force in the decision-making process for the organization. There are some members of the GFD want to change work schedules from a 24/ 48 to 48/96 work schedule, and a study has not been conducted to see if a schedule change would result in a positive or negative outcome. The problem is the GFD does not know the impacts on the organization by changing from the current 24/48 work schedule to a 48/96 work schedule. If research is not thorough, the GFD could see negative effects that could include the decrease in the level of service provided as well the decrease in the morale of the members by changing work schedules without any data to show the impacts of the change.

The purpose of this research is to determine the organizational impacts of the GFD changing from the current 24/48 work schedule to a 48/96 work schedule. The author has utilized descriptive research to determine the benefits and problems with the 48/96 work schedule. To be good stewards of the taxpayer's money and to the citizens who we serve the author is has done due diligence in this research to determine what is best for the citizens of Greensboro and the members of the GFD.

The author has utilized descriptive research and developed four research questions to aid in this research that include:

- (a) How would a schedule change affect the service delivery for the citizens of Greensboro?

- (b) How would the morale of the line firefighters be affected by the schedule change?
- (c) What effects would a schedule change have on the fire administration concerning leading the department?
- (d) How could a schedule change affect the overtime budget?

### Background and Significance

The GFD is a full career fire department located in the Piedmont Region of the U.S. state of North Carolina. The Piedmont Triad or "Triad" is in the north central part of the Piedmont region. Three cities, which are close to each other, make up the "Triad." They are the cities of High Point, Winston-Salem, and Greensboro (Greensboro Fire Department Planning Section, 2011). The GFD serves 147 square miles with a population of 237,697 and responds to 30,000 plus incidents annually. GFD provides fire protection, technical rescue, hazardous materials, and basic life support with twenty-three engine companies, ten ladder companies, one heavy rescue, five battalion chiefs, and one shift commander (Greensboro Fire Department Planning Section, 2011). Each engine, ladder, and rescue Company has a company officer, an engineer, and one to two firefighters assigned.

The GFD has worked the 24/48 work schedule since the mid-1960's and has not studied any other type of work schedules. Since the 1960's the fire department has seen a large amount of growth and has a very young department that has 50% of the members that has less than ten years of experience. The GFD is the only major department who works a 24/48 schedule in our area. The workload and call volume have increased expediency over these decades and with a younger department that has younger families there is a growing concern of firefighters having enough time off and rest between shifts. The GFD allows 18 personnel off on any given shift with 151 firefighters working per day. Vacations are selected in January of each year, and each

firefighter has their time off scheduled a year in advance. Typically, each firefighter will receive up to two picks for vacations a year with five shifts or less on each pick. This leaves the most tenured members receiving the prime vacation times of the year.

There is a growing concern of firefighters burning out by not getting enough rest on the 48-hour off and not enough time off with their family. There has been an increase of GFD members utilizing sick leave especially on the weekends and during the summer. This sick leave use has been termed "sickactions" by the command staff. This uptick in sick time use has affected the overtime budget in a negative way. These concerns have spawned discussions by some members of the GFD on different types of work schedules with a primary focus on 48/96 work schedule. There is not a fire department in our region that we can compare data with to see if this schedule would work for the GFD. The GFD administration is open to the idea of a schedule change but has concerns about the effects of the overtime budget and the scheduling of activities such as training, public education events, etc.

A schedule change could improve the level of service that the GFD provides by increasing the productivity of the line companies, and meet the mission and operating principles of the GFD. The firefighters could see an increase in morale, increased productivity and happiness in the home life. On the contrary, a schedule change could have the reverse effect on the GFD's mission and employees. A schedule change could decrease the level of service the GFD provides and could have a negative impact on the overtime budget. It is important that comprehensive research be done before a schedule change is made.

This research has a direct linkage to the Executive Leadership course unit three Thinking Systemically. This unit examines the use of thinking systemically by collecting useful data to help clarify and define what occurs within systems (National Fire Academy [NFA], 2015). The

GFD should think in a systemically way, so the best decision is made. This research has a direct link to the United States Fire Administration Strategic Plan goal three "to improve the fire and emergency services capabilities to and recover from all hazards" (, 2010, p. 13). If the 48/96 work schedule is adopted the level of service could improve, or the capabilities would not be hampered by making a wrong decision.

### Literature Review

The GFD has worked a 24/48 work schedule since the 1960's. The GFD has never researched any other type of work schedules, and there is a growing faction within the GFD's ranks wanting to try the 48/96 work schedule. The purpose of this literature review is to investigate what has been researched in reference to this schedule with four main focuses a) the effect of service on the citizens, b) morale of the firefighters, c) affects on the fire administration to manage the department, and d) the effects on the overtime budget. This past research will help guide the author to develop the research for the GFD's research on the work schedule.

A concern on a work schedule change from a 24/48 to a 48/96 work schedule is how working 48 hours straight would affect the GFD's ability to provide a cost-effective service to the citizens of Greensboro. The author conducted research on this topic from fire departments who have conducted studies on their own about the 48/96 work schedule. The author in this literature research found that fatigue was a common concern with shift work. This information led the author to conduct research on fatigue outside the fire service and shift work.

The Westminster Fire District's (WFD) fire administration had the same concern as the GFD when firefighters work 48 hours straight, which is how would short-term fatigue affect productivity. The WFD's Professional Firefighters conducted research to address their concerns. In their study, they found that short-term fatigue is consecutive hours of working without an



adequate amount of sleep (WFD, 2008). WFD Professional Firefighters noted firefighters were already working 48 to 60-hour shifts do to trades and overtime and found this level of fatigue manageable (WFD, 2008). WFD's Professional Firefighters concluded that the 48/96 work schedule allowed sufficient time between shifts to get plenty of rest and the firefighters came back to work more focused and rested (WFD, 2008). The four-day break allowed for crews to combat long-term fatigue "the accumulation of fatigue that last over weeks, months or longer periods without rest periods"(WFD, 2008, p. 8). This study suggested with 48-hour shifts crews were able to complete projects, increase training activities and complete inspections (WFD, 2008).

West Metro Fire Rescue (WMFR) focus group noted that the 48-hour shift allowed for an increase in productivity exercised more and less stress (JVA Consulting, LLC [JVA], 2006). This study agrees with WFD's study on the increase in productivity. WMFR also noted that half as many shift changes occurred with this schedule and they have more efficiency and provide a better service (JVA, 2006). In WMFR nine-month trial study of the 48/96 schedule, they did not have significant differences in citizen complaints, corrective actions and injuries (West Metro Fire Rescue [WMFR], 2006). WMFR did have an increase in vehicle accidents in the second half of the 48-hour shift but noted none were contributed to fatigue (WMFR, 2006). WMFD went further stating that turnout times improved and meet one of the organizational objectives (WMFR, 2006). The United Firefighters of Los Angeles (UFLAC) study on the 48/96 work schedule concluded that the fewer shift changes made less duplication of work, and the firefighters felt more productive and organized (United Firefighters of Los Angeles City Local 112 [UFLA], 2007). UFLAC stated the 48-hour schedule gave more flexibility in scheduling work, managing projects, and better communication between shifts (UFLA, 2007). In a recent

GFD, strategic planning meeting a discussion topic was that the shifts had inadequate communication, and a plan to increase the effectiveness of shift communication should be investigated (Brown, 2016).

Evidence suggests that fatigue from shift work causes more injuries, errors in judgment, and failure to follow protocols (Morshead, 2002). Job-Related stated that having an adequate amount of sleep with an emphasis on quality not the quantity of six hours is important and shift schedules that are designed properly help reduce the negative effects of shift work fatigue (Morshead, 2002). This research also concludes that employees on shift work cause eating patterns to change, increase in alcohol use, and increased stress (Morshead, 2002). Kirkwood agrees with Morshead about the issue of fatigue, and he carries the discussion further by stating it is unethical for workers to be performing these duties which are fatigued, and the leadership needs to reduce the liability of fatigue in the workplace (Kirkwood, 2012).

A report by San Jose Firefighters Local stated that short-term fatigue is common in the traditional 24/48 schedule, and compounded with long-term fatigue is included with the 24/48 schedule (Hoenisch, 2003). They noted that long-term fatigue was reduced with the 48/96 work schedule when compared to 24/48 work schedule (Hoenisch, 2003). An independent study of sleep patterns of firefighters discovered that the 48/96 work schedule had an increase of sleep on duty hours from 5.8 hours to 6.6 hours and only a 26-minute sleep reduction on the second shift (Caputo et al., 2015). This study also identified that the 48/96 schedule reduces daytime sleepiness, and the firefighters felt more refreshed after implementing 48/96 (Caputo et al., 2015). Other research theories suggest that shift work greater than 48 hours can lead to cardiovascular strain in firefighters that could result in long-term health effects (Choi et al.,

2014). While this is a theory, there should be more in-depth analysis of 48-hour shifts (Choi et al., 2014).

While the author did not discover any scientific research on the long-term effects of fatigue and health issues with the 48/96 work schedule, the author did discover some ways to handle the short-term effects of fatigue. UFLA suggests a rotation on the second shift of crews from busier units to slower careful survey (UFLA, 2007). WMFR noted that the 48/96 schedule gave flexibility in the crews to manage short-term fatigue.

In the GFD's last strategic planning meeting, the leadership team discussed that the morale of the firefighters should be included in the leadership's decision-making process (Brown, 2016). Kokemuller, suggests that the benefits of good morale improves productivity, collaboration, and reduces absenteeism (Kokemuller, 2016). Work-life balance is a critical component to morale, productivity and employee job satisfaction (Larson, 2013). The author conducted research on how the 48/96 work schedule affected the morale of the firefighters. In a previous study of departments who converted to the 48/96 work schedule had an increase in morale and firefighters were more energetic when they came back from their four days off (WFD, 2008). This study also concluded that the 48/96 work schedule gave firefighters 26 full weekends a year compared to 18 weekends per year off on the 24/48 schedule (WFD, 2008). Hoenisch added that the 48/96 gave the firefighter a 50% increase in mornings at home compared to the 24/48 schedule (Hoenisch, 2003). With more family time, that the 48/96 schedule provides, it has suggested that this reduces the stress on the households and improves the well-being of not just the firefighter, but, it improves the morale of the entire family (WFD, 2008). A focus group of different members and firefighters reported that the quality time with the children and spouses improved when the 48/96 schedule was implemented (JVA, 2006).

This study also stated that when the firefighter was at home 48-hour they were more refreshed and not distracted when they are at home (JVA, 2006).

Wilcox noted after Manhattan Beach Fire Department (MBFD) transitioned to the 48/96 work schedule the morale of the firefighters increased and this filtered to all levels of the department at no cost to the city (Wilcox, 2002). Previous studies that support the claim from WFD found that the 48/96 work schedule has reduced firefighter's burnout working with patients and increased job satisfaction (Caputo et al., 2015). Caputo did note that this study did contradict other studies conducted on working long shift hours, and also noted that there is very little data on long shift schedules that relate to the fire service specifically (Caputo et al., 2015).

In West Metro's study, it was reported that job satisfaction increased along with increased satisfaction with the shift as time went on (WMFR, 2006). While this study did, have some contradictions with the previous study stating that family time on the 48/96 work schedule created issues with childcare arrangements, elder care arrangements, visitation rights, and spousal support while on the long 48 hour shifts (WMFR, 2006). This study did conclude that while the firefighter was home in the 96 hours, spousal support had increased (WMFR, 2006). UFLA had similar results with WMFR with improved morale and quality of life (UFLA, 2007). UFLA did note some of the same issues as WMFR with families having spouses away for 48 hours did create some hardships and dependent care complications did arise (UFLA, 2007).

Davis suggests that the leadership of an organization must look into the current organization's setup to see if the organization is producing the skills and capabilities that meet the demands of the job (Davies, 2016). How would a schedule change affect the way the GFD's leadership manage the department? It is important to research this topic to determine what is best for the entire organization and not just a few people who want a change. The Occupational Safety &

Health Administration (OSHA) does not have a standard that covers long work hours; they do offer guidance to address the hazards associated with long work hours (Occupational Safety & Health Administration [OSHA], n.d.).

Chief Wilcox noted in 2002 after several years operating under the 48/96 work schedule the administration has seen an increase in productivity, projects completed and reduces in redundant work that gives more time for a job-related activity (Wilcox, 2002). Wilcox continued stating that after the switch to 48/96 sick leave use was reduced and morale improved (Wilcox, 2002). In WMFD's research on the 48/96 schedule it is also noted that communication between the shifts was more efficient, and a reduction of duplication of work that resulted in an increase of productivity (WFD, 2008).

Local 522 concluded that Telestaff could be easily adapted to this schedule and other agencies in the area were using Telestaff on this program (Johnson, Repetto, Law, & Valentine, 2006). WFD did have to make some modifications had to be made for the payroll department to be able to switch to the 48/96 schedule (WFD, 2008). WMFD did have some concerns from the administration stating that scheduling training was more difficult for them, monitoring fatigue was more of a challenge, and assisting personnel with unique dependent care responsibilities while on the 48-hour tour gave the administration more challenges (WMFR, 2006). WMFD did note they practiced a crew rotation policy moving crews from busier companies to slower companies created management issues for the administration (WMFR, 2006). WMFD did note the rewards outweighed the challenges (WMFR, 2006).

Like many organizations, personnel costs make up to 95% of an organization's budget. A major concern within any organizational and management decisions would have to include the effects on the budget. The author conducted research on this topic to determine if previously

written information on this topic of converting from the 24/48 schedule to 48/96 work schedule would not have any negative impact on the operating budget.

The City of San Jose payroll's department conducted an analysis of the effects of the 48/96 work schedule for an entire year and did not discover any negative impacts on the budget (Kadomoto, 2002). WMFD noted that payroll did have to make modifications to the payroll system, but did not note any additional budget expenses (WFD, 2008). In 2002, Chief Ortega reported that the Albuquerque Mexico Fire Department paid two hours less per employee each pay cycle (Ortega, 2002).

The GFD has a high amount of sick leave usage on Friday's, Saturday's, and Sunday's. The sick leave usage creates empty spots that are filled with overtime personnel. This creates a strain on the overtime budget that keeps increasing each year. Chief of Manhattan Beach stated had a reduction in sick leave usage drop 65% after his department converted to the 48/96 work schedule, which consequently created a reduction in overtime usage (Wilcox, 2002). Poole suggests that the increase in morale equals in a decrease in sick time usage (Poole, 2012). WMFR noted a decrease in sick usage by 29%, which made significant savings in the overtime budget (WMFR, 2006). In Berkley's Fire Departments (BFD), a study of the 48/96 work schedule did have an increase in personnel sick leave by 13.7% and overtime was up 12.21% after the switch to the 48/96 work schedule, but noted a decrease in family sick leave of 18.95% (BFD, 2012). In this study on BFD, the information provided did not give a direct result that the increase of personnel sick usage was contributed to the 48/96 work schedule.

While personnel costs make up the majority, of many organizations budget, it, would be prudent to look at the maintenance and operations side of the budget. WFD stated that the 48/96 work schedule reduced redundancy in work that saved the fire department \$14,000 a year in fuel

and \$4800 a year in cleaning supplies (WFD, 2008). Chief Halton noted the same that the reduction in redundancy of work and trips reduced fuel usage (Halton, n.d.).

This literature review gave the researcher valuable insight on the effects of the 48/96 work schedule. This information helped guide the author to develop the data gathered for information instruments used in this research project. The author utilized this information to find out how the change would affect the GFD and compared the new data collected with what has already been researched.

### Procedures

The researcher utilized a questionnaire to collect new data to answer questions one and two. The data collection procedure to answer question three was the utilization of a survey to line company personnel. The author conducted an interview with planning research Battalion Chief to collect data for the fourth research question. The information from the literature view enabled the author to develop the data collection process for the ARP.

For questions, one and two the author developed a questionnaire that was delivered for the administrative personnel who are responsible for managing the daily functions of the department and monitor our service delivery effectiveness. This questionnaire (Appendix A) was distributed by email to personnel in Logistics, Training, Equipment Services, and Emergency Services on August 20, 2016, with a closing date of September 9, 2016. Eighteen personnel were selected for this data collection instrument, which are responsible for the daily management scheduling of activities, and monitor the effectiveness of the fire department's service to the citizens. While the GFD does not have any experience with this work schedule, the author gave a brief description of the schedule shown in (Appendix A) describing the work schedule so the respondent can make an educated decision. The author did recognize that this

work schedule is not a popular schedule utilized in our region of the country and the respondents do not have a lot of knowledge of this schedule or even work our current 24/48 schedule. This data could give the author results that are not an educated opinion.

The author developed a survey from the information gained from the literature review to gather data for question two shown in (Appendix B). This survey was distributed by email and Survey Monkey was utilized to assist the author with data collection and analysis. The author selected 70 personnel who currently work the 24/48 work schedule. These people were selected based on that; they were not retiring within the next year, which may skew the data collected. The author wanted to make sure the equal distribution of all ranks, battalions, and shifts. The author was careful not to select personnel who already want to work this schedule. This process was utilized to limit the variables of the data collection process. The limitations of this data gathering instrument are the selected participants were not familiar with the 48/96 work schedule and had a human tendency to resist change. To get results that are more informative the author gave a description of the work schedule shown in (Appendix B) before the survey was attempted.

The author conducted an interview on September 27, 2016, with Battalion Chief assigned to the strategic planning division. This Battalion Chief is responsible for the staffing program of the GFD. His other job responsibilities include monitoring sick leave usage, overtime usage, and leave usage. He is familiar with our current 24/48 work schedule, but because he is not familiar with the 48/96 work schedule there are some limitations on data collection. The data collection tool utilized to answer question four was an interview. An interview was chosen based on the fact only one person was needed to collect data from, and the author would be able to paint a picture of the work schedule being researched. This method allowed for more accurate data collection based on facts not opinions to reduce the limitations of the data collection. In an an an



appendix, (C) describes the interview process and questions that were asked to keep the author on track and to collect the needed data.

### Results

The findings from this applied research project come from a review of literature that was previously written on this topic and the author's original research. Both methods of data collection were utilized to answer the research questions. The appendices will contain all the data collected by the author's research; while in this section will include a summary of the author's research.

A questionnaire shown in Appendix (A) was emailed to 18 administrators of the GFD whose job is to monitor the effectiveness of the GFD's service delivery and manage the daily programs. This questionnaire was developed from information obtained from the literature reviewed by the author. The limitations of this questionnaire are the familiarity of the 48/96 work schedule by the respondents was limited, and the administrators filled out only seven questionnaires. With only seven respondents reporting back gave the author some limitations on how the administration truly thought about the work schedule.

Table 1 depicts the GFD's programs that are managed by these administrators. The only major negative impact discovered was the delivery of training that could cause some problems. It was noted by one respondent that the delivery of our Emergency Medical Technician continuing education classes would have to change to Monday's and Saturday's. Also noted was that scheduling of special speakers to deliver training on all three shifts would be more difficult. The author did not discover any negative impacts to the other programs the GFD conducts, by converting to the 48/96 work schedule.

Table 1

<b>Program</b>	<b>Positive Impact</b>	<b>No Impact</b>	<b>Negative Impact</b>
Meeting	2	5	0
Staffing	4	3	0
Public Safety Events	0	6	1
Training Activities	2	1	4
Promotional Process	1	6	0
Testing of Equipment	1	6	0
Communication Between Divisions	1	5	1
Communication Between Shifts	0	5	2

The concerns about the negative impacts of the work schedule that would affect the GFD's level of service focus on fatigue from the firefighters who are assigned to the busier firehouses. Another major concern could be a negative impact is trade time for the line life fighters who trade their shift off with another firefighter and pay back that firefighter by working their shift. The perceived negative would be that it would be difficult for firefighters to utilize trade time. The firefighters who work at slow firehouses for 48 hours straight could lose their enthusiasm, which would reflect in the service delivery. While fatigue is a common concern, the research data from the literature review contradicts the perceived notions about the 48/96 work schedule. The new findings from this research were the major concern about trade time and the enthusiasm of the firefighters who would have to work 48 hours at a slow station.

The respondents noted that the positive impacts of 48/96 work schedule an increase in morale by allowing the firefighters more time with their family. This respondent noted that higher morale made a better employee. The respondents also noted that the 48-hour work schedule would increase productivity, which would in return increase the GFD's level of service provided. One respondent suggested that with the reduction of repetitive work like going to the

grocery store, station maintenance, and equipment checking more time could be devoted to meaningful company training. One new finding was the reduction of fuel usage based on less redundancy of work could be cost savings. This data was not expected from the author from this questionnaire. The data collected from this questionnaire is validated with the information collected from the literature review material. The author did not anticipate that six of the seven respondents supported a one-year trial period of the 48/96 work schedule with one respondent who did not answer.

The administrators who responded to the survey suggest that the 48/96 work schedule could have a negative effect on morale, based on the assumption that people do not like change. They did not think that more time with the family could have a positive morale effect. This suggestion is in line with the author's literature research. In all the author did not collect some intended samples wanted but did find some support for the work schedule. The author did not find any negative or major contradiction to the literature review material.

The second data collection tool was a survey developed by the assistance of Survey Monkey. This survey was distributed by the use of Micro Soft Outlook to 100 line employees who work for the GFD. The primary purpose of this data collection tool was to focus on the perceived effects of this work schedule on employees' morale. These survey-targeted members from all three shifts, all ranks including five battalions. To maintain the validity of this careful survey consideration was given not to allow the faction of members who are pursuing this work schedule and a large number of members who are retiring during the time the author were collecting data. The author did have an 81% collection rate.

The first question focused on how would the 48/96 work schedule affect activities about the employees' home live and work related tasks. The main negative responses focused on the

ability to use trade time, managing child visitation rights, and helping the spouse with tasks at home. While these numbers did stand out to the author, only trade time had over a 50% negative response. For the positive responses, the members of the GFD perceive that this schedule would have a positive impact on family vacations, completing tasks at work, and have better rest time between work cycles. Table 2 shows in detail all the responses from 81 participants.

Table 2

### 48/96 Work Schedule Survey

1. Using A numeric rating of the following activities listed below with (1) positive impact, (2) no impact, or (3) negative impact in regards the perceived effect on yourself and family in regards working the 48/96 work schedule. Choose one				
Answer Options	1	2	3	Response Count
Child care including child visitation rights	8	46	27	81
Family vacations	44	26	11	81
Assisting with elderly family members	16	52	13	81
Helping spouse with tasks at home	29	20	32	81
Care for pets	12	43	26	81
Rest time between work cycles	51	19	11	81
Completed job-related tasks in 48 hours compared to 24 hours	43	26	12	81
Working trades and overtime opportunities	15	22	44	81
Outside work employment	23	36	22	81
				<b>Question Totals</b>
				<i>answered question</i> 81
				<i>skipped question</i> 0

Question 2 focused on the perceived negative impacts on the employees work life balance of the 48/96 work schedule. Three common perceived negative outcomes that are identified in this data collection instrument is that trade time off normal duty days and being able to pay the time by working on the other employee's shift is a major concern. The second perceived negative outcome is being away for 48 hours would be hard to the other spouse with children. The third common perceived negative outcome is the ability to work hire backs and manage the 48 regular work hours. Also, 12 respondents did not see any negative outcomes for the 48/96 work schedule. Shown in Appendix D has a full list of the 76 responses.

Question 3 focused on the perceived positive impacts that working the 48/96 work schedule would affect the life work balance for line employees of the GFD. Seventy of the 81 respondents answered the survey. A full list of responses for this question is displayed in Appendix E.

Of the 70 responses, 11 advised they did not see any positive outcomes from working the 48/96 work schedule. The vast majority of the respondents reported that the time off was a benefit and giving more time with the family; rest mentally and physically between shifts. Respondents also noted that the rest between the shifts reduced burnout. What the author did not expect was that some respondents reported that the work schedule would allow for projects and tasks to be completed at work more effectively.

When asked if you are currently satisfied with the Current 24/48 85.2% advised they were. When asked if the 48/96 work schedule would affect morale in a positive or negative way 53.2 % advised positive and 46.8% negative. This research is in line with previous research conducted by the author. What was unexpected was that if you would be for a one-year trial period of the 48/96 work schedule 60.5% of the responses voted yes.

The financial impact of different work schedules is a major consideration for administrators to research. The last research question was to discover any negative or positive impacts that would affect the GFD by converting to the 48/96 work schedule. The research methodology by the author was to conduct an interview with the GFD's Battalion Chief in the strategic planning division. This position is responsible for performance and accountability section and is very familiar with the GFD's staffing program TeleStaff and the Fair Labor Standards Act (FLSA).

When asked if the GFD the 48/96 work schedule would need to change pay cycles from the current work schedule. The response was the GFD would need to switch from a 27-day cycle to a 28-day cycle. This research is current with the author's literature research. New findings during the interview were an employee would work 240 hours for two 28-day cycles and 192 hours the next cycle. This change could cause some start up costs for this conversion for the city finance department to switch from a 27 -day work cycle to the 28-day work cycle.

The respondent noted that the work hours would be the same working the 48/96 work schedule as compared to the current 24/48 work schedule. This schedule change would not have any negative or positive impacts on the overtime budget as compared to the current 24/48 work schedule. The charge and earn rate for vacation, sick and holiday time use would remain the same 2/3 rate charge rate as in the current 24/48 work schedule. The respondent did report fuel usage should down base on the theory that redundancy of equipment checking and going to the grocery store will go down.

### Discussion

The purpose of this research is to determine the organizational impacts of the GFD converting from the current 24/48 work schedule to a 48/96 work schedule. The author has

utilized descriptive research to determine the benefits and problems with the 48/96 work schedule. To be good stewards of the taxpayer's money and to the citizens who we serve the author is has done due diligence in this research to determine what is best for the citizens and members of the GFD.

The author has developed four research questions to aid in this research that include: (a) How would a schedule change affect the service delivery for the citizens of Greensboro? (b) How would the morale of the line firefighters be affected by the schedule change? (c) What effects would a schedule change have on the fire administration concerning leading the department? (d) How could a schedule change affect the overtime budget?

West Metro Fire Rescue (WMFR) focus group noted that the 48-hour shift allowed for an increase in productivity exercised more and less stress (JVA Consulting, LLC [JVA], 2006). This study agrees with WFD's study on the increase in productivity. WMFR also noted that with half as many shift changes they have more efficiency and provide a better service (JVA, 2006). In WMFR nine-month trial study of the 48/96 schedule, they did not have significant differences in citizen complaints, corrective actions and injuries (West Metro Fire Rescue [WMFR], 2006). WMFR did have an increase in vehicle accidents on the second half of the 48-hour shift but noted none were contributed to fatigue (WMFR, 2006). WMFR went further stating that turnout times improved and met one of the organizational objectives (WMFR, 2006). The author did identify a concern from one GFD administrator that turn out times would increase on the second day, this contradicts from the author's literature research. The United Firefighters of Los Angeles (UFLAC) study on the 48/96 work schedule concluded that the fewer shift changes made less duplication of work, the firefighters felt more productive and organized (United Firefighters of Los Angeles City Local 112 [UFLA], 2007). UFLAC stated the 48-hour

schedule gave more flexibility in scheduling work, managing projects, and better communication between shifts (UFLA, 2007). The results from the author's findings confirm the findings from UFLA.

In the author's findings that the GFD's perceived notions of the 48/96 work schedule did coincide with the author's findings in the literature review except for three areas. The first concern is for the department being able to manage EMT continuing education program; the second was turn out times and third how would the new schedule affect the GFD's current policy on trade time.

In this study on the effects of the 48/96 work schedule on the service delivery for the citizens of Greensboro, the author identified a warm perception of this work schedule and was not expecting this type of response. The data gathered from the research did agree with a lot of the literature review material. The author did identify some areas of concern that further research needs to be conducted on as stated in above paragraph.

The second study focused on the possible effects on the morale of the GFD firefighter working the 48/96 work schedule. Wilcox noted after Manhattan Beach Fire Department (MBFD) transitioned to the 48/96 work schedule the morale of the firefighters increased and this filtered to all levels of the department at no cost to the city (Wilcox, 2002). The author's findings on the perceived impacts of the 48/96 work schedule would improve the morale of the GFD firefighters. Previous studies that support the claim from WFD found that the 48/96 work schedule reduced burnout working with patients, and increased job satisfaction (Caputo et al., 2015). Caputo did note that this study did contradict other studies conducted on working long shift hours, and also noted that there is very little data on long shift schedules that relate to the fire service specifically (Caputo et al., 2015).



In West Metro's study, they reported that job satisfaction increased along with increased satisfaction with the shift as time went on (WMFR, 2006). While this study did, have some contradictions with the previous study stating that family time on the 48/96 work schedule created issues with childcare arrangements, elder care arrangements, visitation rights, and spousal support (WMFR, 2006). This study did conclude that while the firefighter was home in the 96 hours, spousal support had increased (WMFR, 2006). UFLA had similar results with WMFR with improved morale and quality of life (UFLA, 2007). UFLA did note some of the same issues as WMFR with families having spouses away for 48 hours did create some hardships and dependent care complications did arise (UFLA, 2007). The author's findings did agree with the literature review stating that when the firefighter is gone for 48 hours straight did create some hardships with the firefighter's spouse. Also noted the four days off would make the home life easier, which is in line with the literature review.

The author did receive good support for a one - year trial period to work the schedule even though the majority of respondents like the current work schedule, this support were not expected from the author. The main topic that needs further research is the topics of trade time and overtime.

The last area of research for this ARP was on the financial impact of converting to a 48/96 shift. Would the 48/96 work schedule have a negative impact on the overtime budget? The GFD has a large amount sick leave usage on Friday's, Saturday's, and on Sunday's. The sick leave usage creates empty spots that are filled with overtime personnel. This sick time usage creates a strain on the overtime budget that keeps increasing each year. Chief of Manhattan Beach stated after his department saw a reduction in sick leave usage drop 65% after his department switched to 48/96 work schedule, which made a substantial reduction in overtime

usage (Wilcox, 2002). Poole suggests that the increase in morale equals in a decrease in sick usage (Poole, 2012). WMFR noted a decrease in sick usage by 29%, which made significant savings in the overtime budget (WMFR, 2006). In BFD's study of the 48/96 work schedule did have an increase in personnel sick leave by 13.7% and overtime was up 12.21% after the switch to the 48/96 work schedule, but noted a decrease in family sick leave of 18.95% (BFD, 2012). In this study on BFD, the information provided did not specify that on the increase of personnel sick usage was a result of the 48/96 work schedule. If the GFD does switch to the 48/96 work schedule morale could improve, and sick leave usage could go down which would reduce the overtime budget. Current data collected suggest that the GFD member's morale would improve on this schedule as well.

Local 522 concluded that Telestaff could easily be adapted to this schedule and that other departments in the area were using Telestaff on this schedule (Johnson, Repetto, Law, & Valentine, 2006). WFD did have to make some modifications to TeleStaff for the payroll department to be able to switch to the 48/96 schedule (WFD, 2008). The author's research did agree with literature review in referencing our scheduling and payroll software. Payroll would have to switch from a 27-day work cycle to a 28-day work cycle. The number of hours an employee would work would be the same and resulted in no additional overtime cost.

The research for this ARP did find positive organizational impacts of the 48/96 work schedule that would benefit the employees, citizens, and the department. The author did identify additional concerns that need to be addressed that are specific to the GFD's organization to move to the 48/96 work schedule.

### Recommendations

After the completion of the literature, review of previous material written on the 48/96 work schedule and the author's original research, on this subject, the author suggests the following recommendation.

1. Further research needs to be conducted to find a more efficient way for the training division to conduct EMT continuing education program and outside instruction opportunities.
2. Further research needs to be conducted on the GFD's current Trade policy.
3. Further research needs to be conducted on the amount of overtime an employee can work.
4. Further research needs to be conducted with the City of Greensboro Payroll Department to identify the processes needed to change from a 27-day work cycle to a 28-day work cycle.

The author recommends after the additional research is complete that the GFD conducts a 1-year trial period of the 48/96 work schedule. The author believes that this schedule would improve morale, increase the efficiency of the level of service provided, and reduce overtime costs. Additional benefits of this research discovered include some cost savings of fuel and repairs to apparatus. The author does recommend that during this trial period a quarterly review of the 48/96 work schedule and compare to data of the current 24/48 work schedule. This comparison would determine the true effects of the 48/96 that are positive or negative for the organization, and citizens.

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## Appendix A

### Introduction

I am conducting research for an applied research project on the 48/96 work schedule compared to our current work schedule.

### Purpose

The purpose of this questionnaire is to determine the perceived benefits or negative outcomes of the 48/96 work schedule as to the current 24/48 work schedule, as it relates to the GFD's ability to provide service and the ability for the leadership to manage the department.

### Instructions

Please review the overview of the work schedule. Please answer each question and either by email or place in the inter office mail in a written format, by September, 9<sup>th</sup> 2016.

### Overview of the work schedule

This schedule has been utilized by numerous fire departments with great success for several years now. Primarily this schedule is utilized by fire departments from the western part of the country it has not been implemented by many departments on the east coast. The primary **perceived negative impacts** of this schedule are crews fatigue, safety and reduction in job performance before the implementation of the work schedule. After implementation of this schedule from the tradition 24/48 schedule departments showed a increase in productivity, **reduction in sick time use**, increase in morale, better home life such as more time with family, reduction in fuel use and feeling more rested on the return back to work from the four day break. Some major departments who use this schedule include Los Angeles Fire Department, Albuquerque City Fire, and Sacramento County Fire.

The 48/96 work schedule operates on a six-day rotation two on and four off and maintains a three-platoon system that we currently operate. This schedule still maintains 56 hours per week, 10 days per month, and 120 days per year.

January 2015						
48-96						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

(Bing [], n.d.)

- Using a numeric rating of the following activities listed below with (1) positive impact, (2) no impact, or (3) negative impact in regards administration staff managing the department for daily activities utilizing the 48/96 work schedule.

- \_\_\_\_\_ Scheduling and Managing Staff Meetings
- \_\_\_\_\_ Staffing Units
- \_\_\_\_\_ Scheduling and Managing Public Safety Events
- \_\_\_\_\_ Scheduling and Managing Training Activities
- \_\_\_\_\_ Scheduling and Managing Promotional Processes
- \_\_\_\_\_ Scheduling and Managing Fit testing, Hose Testing, Ladder Testing
- \_\_\_\_\_ Communications between Divisions
- \_\_\_\_\_ Communications between shifts

- What negative impacts do you **perceive** that would affect our ability to provide effective, efficient service?
  
- What **positive** impacts do you perceive that would increase our ability to provide an effective and efficient service?
  
- Would you be in favor of a one-year trial period for this work schedule? Yes or No
  
- Do perceive that a schedule change would affect moral in a positive or negative way?  
Please Explain



## Appendix B

### Introduction

I am conducting research for an applied research project on the 48/96 work schedule compared to our current work schedule.

### Purpose

The purpose of this questionnaire is to determine the perceived benefits or negative outcomes of the 48/96 work schedule as to the current 24/48 work schedule, as it relates to the morale of the GFD's line personnel

### Instructions

Please review the overview of the work schedule. Please answer each question and enter the submit button. All responses are recorded anonymously to protect the identity of the responder. Please complete the survey by September 15th 2016.

### Overview of the work schedule

This schedule has been utilized by numerous fire departments with great success for several years now. Primarily this schedule is utilized by fire departments from the western part of the country and has not been implemented by many departments on the east coast. The primary **perceived negative impacts** of this schedule are crew's fatigue, safety and reduction in job performance before the implementation of the work schedule. After implementation of this schedule from the traditional 24/48 schedule departments showed an increase in productivity, **reduction in sick time use**, increase in morale, better home life such as more time with family, reduction in fuel use and feeling more rested on the return back to work from the four day break. Some major departments who use this schedule include Los Angeles Fire Department, Albuquerque City Fire, and Sacramento County Fire.

The 48/96 work schedule operates on a six-day rotation two on and four off and maintains a three-platoon system that we currently operate in. This schedule does allow for 26 full weekends off a year, as compared to 18 on the 24/48 schedule.

Still maintain 56 hours per week, 10 days per month, and 120 days per year.

January 2015						
48-96						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

(, n.d.)

- Using a numeric rating of the following activities listed below with (1) positive impact, (2) no impact, or (3) negative impact in regards the perceived affect on yourself and family in regards working the 48/96 work schedule.

- \_\_\_\_\_ Childcare including child visitation rights
- \_\_\_\_\_ Family vacation
- \_\_\_\_\_ Assisting with elderly family members
- \_\_\_\_\_ Helping with spouse tasks around the house
- \_\_\_\_\_ Care for pets
- \_\_\_\_\_ Involvement with children’s activities
- \_\_\_\_\_ Rest time between work cycles
- \_\_\_\_\_ Completing job related tasks in 48 hours compared to 24 hours
- \_\_\_\_\_ Working trades and overtime opportunities
- \_\_\_\_\_ Outside Employment Work

- What **negative** impacts do you **perceive** that the 48/96 work schedule would affect you work life balance?

2. What **positive** impacts do you **perceive** that the 48/96 work schedule would affect your work life balance?
3. Would you be in favor of a one-year trial period for this work schedule? Yes or No
4. Do you perceive that a schedule change would affect moral in a positive or negative way?
5. Are you currently satisfied with the current 24/48 work schedule? Yes or No

Appendix C

**Date:** 9/27/2016

**Time:** 13:00 Hrs

**Location:** Strategic Planning Office

1514 N. Church St

Greensboro, NC 27405

**Interviewer:** Alex Gossett

**Interviewee:** Battalion Chief Todd Tuttle

**Introduction**

Purpose of this interview is to compare the financial impacts of the 48/96 work schedule to the current 24/48 work schedule.

**Overview of the work schedule**

48/96 work schedule that operates on a six day rotation with the same three platoon system

May have to work Christmas Eve and day

Still maintain 56 hours per week, 10 days per month, and 120 days per year

January 2015						
48-96						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

(, n.d.)

Questions

1. Would the GFD have to change work cycles if the work schedule was changed to 48/96?
2. Would this change have a negative or positive effect on FLSA overtime compensation?
3. Would this change effect holiday, vacation, and sick time hourly charges?
4. Do you vision any other finical impacts on the schedule change?

## Appendix D

**Q2 What negative impacts do you perceive that the 48/96 work schedule would affect your work life balance? Responses**

1 Fatigue

2 None

3 Being away from your family for 2 days. Difficulty trading.

4 being away from home 48 then 24.

5 Being at the station for 2 days

6 Will make trades harder to find. Mandatory two straight days away from family.

7 Two nights away from home could be a problem. 48 hours of unattended dependents or only one parent at home is too long.

8 I would potentially miss important life events with the family. I would not be available to help my wife with home life for 48 hours.

9 -trades might be more difficult for long periods of time off -people who are not used to working multiple shifts in a row might have a tough time adjusting

10 none

11 None

12 Been exhausted at busy station.

13 Being away for family for 48 hrs. Not being able to help my wife with 2 small kids.

14 I have very little child care issues due to our current work schedule and my wife's' work schedule, to go to a 48/96 would greatly impact our need for child care and have a drastic increase in child care expense.

15 zero productivity on the second day, also time away from home would have a negative impact on family life. In addition, how do you address trade time or sick time?

16 To much time away from family and puts a lot more stress on spouse raising kids.

17 not many until we try it

18 Working more holidays (Christmas eve and Christmas day). Hard to work trades.

19 It would be hard to keep the animals fed. but other than that I don't see a problem

20 Seems like doubles would add up to be long time to be gone from young children even though work hours are the same. I may be willing to do a trial period of 6 months. A year seems like a long commitment.

21 Make it harder on spouse having to care for kids for 48 straight hours

22 Other employment would be negatively impacted

23 concerned about trades. If needed i could be put in a position to work a triple

24 Adaptation to new schedule and having family get used to it.

25 If you ride multiple calls on the first shift and you ride multiple calls on the second day too. On the third day you will have to rest and miss out again.

26 Flexibility to trade off for a day that you actually need. Could put you working more than 48hrs if you trade or hire back.

27 not sure until I try it

28 Working Trades. If there is, a certain day that you would need off and could only trade it. The 48/96 would make it difficult to get a trade to cover it.

29 48 hrs is a long time to be away from family on a regular basis. Trades would cause you to work 72 or even 96. That is just too long.

30 none

31 The only negative impact that I foresee would be the initial reluctance of some members of our department willing to try this new schedule. Studies have shown that the overall acceptance by the members of that department towards a 48/96 schedule dramatically increased after a 1-year trial.

32 Double shifts have always been stressful on my wife. 48 hours with two young children can be taxing.

33 Outside work opportunities

34 being at the busiest house 48 would be hard on a regular basis

35 None

36 2 days away from my family being at the fire station for 48 hours

37 Payback trades could make you work 72 or more

38 None 8/21/2016 3:14 PM

39 When my wife is home with sick children or a house emergency happens and I am gone for 2 days.

40 If you have a busy 24 hour shift, could affect recovery time for following 24 hr. shift

41 If something was to go wrong at home while on shift it may be two days before action could be taken. Could add more stress to family life.

42 As of right now nothing, however I can see a negative impact with new born babies and spouse as far as home life.

43 Being away from my family for too long, and strain on my marriage. Also outside employment would not be able to work with the schedule.



44 being away for 48 hours take positive time from family members. I would suggest a 24/72 that would have less impact on family life with greater benefits from more down time from a shift.

45 Missing my son are sporting events when on duty for 48

46 48 hours without beer, wine and sex makes me very hard to be around. My pets and livestock would suffer.

47 Simple put: the thought of change automatically has some negative tone to it. But, if people give it a fair chance I believe the overall change will be positive.

48 It would make home life more stressful for my spouse as she would have to be a single mom for two days instead of one at a time.

49 I don't see any.

50 As of now I do not see any negative impact.

51 Not sure how the trades would work out, or the opportunity for hire backs. I think that overall it would be positive but, at first it will be perceived negatively by many who don't like change.

52 Depending on family events, trades, hire backs

53 Readjusting to constant 2 days away from home, however the 4 days off would be amazing.

54 Trades will be hard to obtain, this is one of the biggest benefits we have.

55 The 2nd 24 would be more difficult if you are at riding stations

56 None

57 Not much since my kids are older and out of the house.

58 With 2 small children at home and a wife that also works the 48 hours straight would be tough although the 96 would be a good thing

59 Zero negative impact.

60 call volume during those 48hrs

61 It would affect my wife and parents negatively by having to adjust their schedules to accommodate our childcare needs. In addition, it would create more stress for my wife for having to handle all child/home issues by herself for 2 days straight.

62 being single, I already have a hard time trying to find someone to watch my dog for 24 hours. It is even more difficult when I have to do a trade for 48. I do not even sign up for hire backs because of this.

63 None....sign me up, ASM

64 None

65 More time to have at home with family

66 It would be difficult on companies with higher call volume to maintain for 48 hours on a busy shift

67 I could see that trades may have an impact by working 3 in a row. If planned correctly then there would be no impact

68 Might be hard to trade, but I'm for it 8/19/2016 3:11 PM

69 48 hours at a busy house is not safe, healthy, or a productive work environment... Your actually home the same amount you just wake up at home more often, it takes me 5 mins to get to the station...this isn't California where they drive 3 hours to work

70 Missing kid's activities

71 Negative impacts on marriage

72 Childcare and my wife able to work her job.

73 Too long away from family

74 If single employees pets would be virtually impossible to maintain. Spouses may feel alienated more being gone two days at a time especially when problems arise in the first hours of a shift and have to be put off until employee returns home 48 hrs later. How trades would be worked if you need both days off would you have to have two trades or one person trading which would be that employee at the fire station for 4 days in a row.

75 I do not see any true negative impacts. The trade system seems like it could be tricky, however still not too much of a negative impact.

76 trades and overtime

## Appendix E

**Q3 What positive impacts do you perceive that the 48/96 work schedule would affect your work life balance?**

**Responses**

- 1 More time to recover from work and feel rested before returning to work.
- 2 More rested on days off. More able to take short trips.
- 3 more time off in a role
- 4 Morale improvement
- 5 Being off for 4 days
- 6 None 8
- 7 4 days with your family is great. 4 days off gives, you more time to work another job so you can pay someone to look after your dependents.
- 8 More time at home
- 9 easier on family life and easier to get outside chores and work done due to 96 hour time off
- 10 I will have more consecutive days off 8/26/2016 7:30 PM
- 11 none 12 I would no longer have the feel of either always going to work or coming home from work.
- 13 None 8/25/2016 9:46 AM
- 14 N/A
- 15 The ability to have more days off in a row
- 16 Two days off would be come 10 days off for trips
- 17 more time to relax at home
- 18 I do like the idea of having 8 more full weekends in a year.

19 none

20 4 days off!

21 With the number of demands the City has in regards to pre-plans - this will allow more time to start and finish the task planned.

22 Potentially more time off, although with the pay structure that we have it gives you more time to make money on your days off.

23 none

24 not sure, until I try it

25 More time at home in between workdays.

26 when you are off its for longer periods of time. You also get more days off with fewer days used when you take leave.

27 Commuting would be cut down by 50%, increased uninterrupted time with the family, longer period to recover.

28 More free weekends.

29 Rest days between work cycles

30 I would have more time with my kids

31 It would allow me to complete more tasks at home. In addition, spend better quality time with my family, because I could be well rested during the 96 hr break.

32 None

33 More days off in between shifts

34 Allows more time at home and less commute time

35 Vacations to the beach and mountains with my family will be a lot easier.

36 could add to quality time with and the for family.

37 the More time to spend with family when kids are out of school. More time to decompress after shift.

38 More rest in turn would boost morale; longer vacation opportunities as far as trades go.

39 NONE

40 taking vacation during a 4-day period would give more time with less impact to leave balances

41 More days off will allow more rest time and time with my kids

42 My liver would get a well-deserved rest.

43 More time at home, not in a hurry to 2 days off to get other things done before returning to the firehouse. More rested before returning to the firehouse.

44 It would be easier to take vacations without having to trade or take time off.

45 I do not see any.

46 Getting job task complete.

47 More full weekends Fri-Sun. Seems to allow for more real downtime between shifts. More quality time with family especially children and their activities between shifts

48 outside employment, vacation

49 4 days off. More time to enjoy time off. Taking 2 vacation days = 10 days off vs. on 24 it would be 8 days max

50 Rest with the benefits of taking a lot more mini vacations.

51 None

52 More time to complete tasks and better home life

53 zero

54 More rest and less fatigue.

55 more sleep between shifts, 4 days home with family,

56 I feel it will allow me to spend more time with my family when I'm off and focus on more work related training while at work.

57 more free time

58 The 4 day break. Being able to take a short vacation without taking time off. 9

59 4 days off would be nice

60 More efficient rest on off days and a better mental reset

61 The 4 days off would be better on family activities, scouts, sports, church, etc...

62 More time off

63 Obviously the 4 days at home between shifts is a huge plus and that alone would prompt me to look further into this

64 I could see it being a better with more time off when you take holidays

65 More time off in a row, more weekends

66 4 days off is great but it's not worth a 48 hour shift

67 More sleep and time to get things done

68 More rest time when away from the fire station which equals more decompression time and possibly less burnout rate.

69 More consecutive time at home. Less needed time off because having more weekends and four days at a time can be planned around. Less of the 30-minute commutes. You get the workdays knocked out at one time, and you are there to keep the momentum of a productive shift going. It will prevent people from being burnt out because they have more days between the repeat of a busy shift

70 Better rest cycle