EXAMINING THE USE OF THE CANDIDATE PHYSICAL ABILTIIES TESTING (CPAT) WITHIN GAINESVILLE FIRE RESCUE DEPARTMENT

EXECUTIVE PLANNING

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

Executive Fire Officer Program

Appendices D through F Not Included. Please visit the Learning Resource Center on the Web at http://www.lrc.dhs.gov/ to learn how to obtain this report in its entirety through Interlibrary Loan.

ABSTRACT

In 2001, Gainesville Fire Rescue Department (GFRD) opted to use the Candidate Physical Abilities Testing (CPAT) for our physical ability test. Unfortunately no statistical outcomes were captured during 2001 or 2002 other than pass/ fail. The purpose of this ARP is to examine the use, evaluate and recommend future CPAT support and/or possible changes to meet GFRD needs. Evaluative research was used to answer the following questions with respect to the CPAT at GFRD:

1. What are the pass/ fail rates of candidates taking the CPAT?
2. Do pass/ fail rates vary according to gender?
3. Do pass/ fail rates vary according to certified or non-certified status?
4. Does CPAT Academy attendance impact pass/ fail outcomes?
5. Does a candidate's fitness level impact pass/ fail outcomes?
6. What is the financial impact of CPAT as our physical testing tool?

The procedures used to complete this ARP included literature search, personal interview, data collection of all CPAT Academy participants and a survey of all candidates completing the CPAT during the GFRD hiring process. Finally a data analysis was completed.

The results indicated an overall CPAT pass rate of 85.94%. Gender disparity was present, only 20% of the female candidates passed compared to 91.53% males. No apparent difference was detected between CPAT pass rates of certified versus non-certified candidates. Fifty-five percent of the candidates who participated in the CPAT

Academy did not have a successful CPAT testing time. A candidate's self-professed fitness level impacted pass/ fail outcomes in the GFRD 2003 process more than any other factor examined. Candidates who self rated their fitness level as *very active* passed at a rate of 100%. Utilizing the CPAT, as our physical ability test was costly for a medium sized fire department. The total 2003 financial cost for utilizing CPAT as our physical testing tool at GFRD was $15,836.18. The CPAT process consumed 27.58% of the GFRD Training Bureau Material and Supplies amount for the entire year despite using a neighborhood fire department's CPAT equipment at gratis.

The recommendation of this ARP was to examine measures to improve candidate's success at each hiring step, purchase CPAT equipment, create a fitness prescription matched to the CPAT, extend CPAT Academy to a minimum of eight weeks, interview all new hired firefighters in order to augment the fitness prescription for the GFRD CPAT Academy, and establish a joint hiring process partnership with adjacent agency.

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INTRODUCTION

The City of Gainesville is a community of 113,025 and 53.8 square miles located in North Central Florida. Currently, the City of Gainesville employs over 1900 employees. Fire Rescue services are provided by Gainesville Fire Rescue Department (GFRD). Additionally, GFRD has a contract agreement with Alachua County Fire Rescue (ACFR) Department covering a total urban community of 145,00 people and 135 square mile area collectively.

Beginning in 2001, GFRD opted to use the Candidate Physical Abilities Testing (CPAT) for our physical ability test. Candidates successfully passing the CPAT progressed to the next step in the hiring process. Unfortunately no statistical outcomes were captured during 2001 or 2002 other than pass/ fail. The purpose of this ARP is to examine the use, evaluate and recommend future CPAT support and/or possible changes to meet GFRD needs. Evaluative research was used to answer the following questions with respect to the CPAT at GFRD:

1. What are the pass/ fail rates of Candidates taking the CPAT?
2. Do pass/ fail rates vary according to gender?
3. Do pass/ fail rates vary according to certified or non-certified status?
4. Does CPAT Academy attendance impact pass/ fail outcomes?
5. Does a candidate's fitness level impact pass/ fail outcomes?
6. What is the financial impact of CPAT as our physical testing tool?

BACKGROUND AND SIGNIFICANCE

In 1996, the Fire Service Joint Labor Management Wellness-Fitness Initiative established a partnership between the International Association of Fire Chiefs (IAFC) and the International Association of Firefighters (IAFF). The project involved ten fire departments in the United States and Canada committed to improving the wellness of its members. After considerable effort, the Task Force agreed to abandon incumbent testing and focus on new candidates. The result was the Candidate Physical Ability Test (IAFF & IAFC, 2000).

In January 2001, GFRD opted to use the CPAT for our physical ability benchmark in the hiring process. GFRD offered no CPAT preparation other than the suggested CPAT Orientation, Appendix 4-2, and the CPAT Candidate Preparation Guide, Appendix 3-1 (IAFF & IAFC, 2000). Candidates were transported round trip to Dothan, Alabama for testing.

In August 2002, GFRD again utilized the CPAT for ability testing. In addition to the orientation and preparation guide offered to all candidates in 2001, GFRD offered a CPAT Academy prior to test date. The CPAT Academy was 12 weeks in length, free of charge, and offered candidates preparatory work for the CPAT physical abilities test. Dothan Fire Rescue Department loaned GFRD the use of their CPAT testing equipment in exchange for providing assessors during the Dothan testing at a later date. GFRD employees' drove to Dothan and retrieved equipment. GFRD Staff later proctored testing in Gainesville. Unfortunately no statistical outcomes were captured on testing candidates other than pass/ fail rates.

In December 2002, GFRD posted for the Firefighter position vacancies for 2003. As in the previous hiring process, GFRD provided CPAT Orientation, CPAT Candidate Preparation Guide and a CPAT Academy. The 2003 CPAT Academy was six weeks in length, free of charge, and offered candidates preparatory work for the CPAT physical abilities test. Ocala Fire Rescue Department loaned GFRD the CPAT equipment. GFRD employees' drove to Ocala and retrieved equipment for test day, which was later proctored in Gainesville by GFRD Staff. The process culminated in May 2003 (Appendix A).

Concurrently in spring of 2003, Karen Ehlers, University of Florida, Academic Advisor, contacted the Author requesting site placement for a University of Florida, Health and Human Performance student. Subsequently, Luis Iglesias was placed for a two credit Spring 2003 Academic Internship at GFRD under the supervision and guidance of Kim Berryman, District Fire Chief. Mr. Iglesias is a junior and has a broad background in fitness and exercise. Mr. Iglesias was tasked with CPAT Academy Orientation, developing all CPAT Academy forms, tracking performance and prescribing improvement to candidates after each CPAT practice session (Appendix B). Additionally, 3 GFRD incumbents who are notable department athletes and fitness buffs were present with Mr. Iglesias for candidate CPAT support. The GFRD CPAT Academy staff and Mr. Iglesias provided coaching to candidates for performance improvement and successful test completion.

LITERATURE REVIEW

The need for industry wide wellness and fitness programs in the fire service takes little literature review to prove merit. "Heart attacks continue to be a leading cause of firefighter deaths, killing 31 firefighters in 2002. The 31 deaths represent almost one third of the 2002 total (IAFC, 2003, February)." The United States Fire Administration (USFA) released a comprehensive study covering 1990-2000. The analysis looked at causes of death for more than 1000 firefighters in the United States. The leading cause of death for firefighters is heart attack at 44% (USFA, 2002). Clearly, a job specific ability test or physical assessment to insure a candidate's fitness level is prudent.

The IAFC and IAFF have emphasized the CPAT is a copyrighted document and is not to be used piece meal. Rather, the intent is for departments to utilize the entire program including transportability studies, recruitment, orientation and training programs (Berkman, 2001). Transportability, recruitment, orientation and training programs, with respect to CPAT, will be examined in the literature review.

According to Berkman, "A disturbing trend ...is the indiscriminate and illegal use of the CPAT by agencies that did not participate in its development and have not conducted a transportability study to show the job-relatedness of the CPAT for their jurisdiction." Although Berkman stated many departments overlooked the transportability study, GFRD completed a transportability study under direction of GFRD Training Chief, Donald King.

A review of the recruitment section of the CPAT manual (Chapter 2) finds a very limited inclusion on how to improve recruitment efforts. In fact as Berkman notes, the manual provides, "...five pages (double-spaced) of very broad suggestions for increasing diversity in the fire service workforce." Unfortunately, the IAFC and IAFF did not solicit help from the Women in the Fire Service (WFS) and International Association of Black Professional Firefighters (Berkman, 2001). Fortunately, GFRD far surpassed the recruitment suggestions of the CPAT manual.

The fourth chapter of the CPAT manual refers to test administration and orientation. As Berkman discusses, Chapter 4 makes no reference to candidates' opportunity to practice on the CPAT equipment (Berkman, 2001). The orientation is supposed to be an opportunity for candidates to "...view the test events, talk with instructors and physically examine test equipment, tools and props in a controlled and consistent setting (IAFF & IAFC, 2000)." The orientation does not allow for candidates to practice on the equipment. Intensive long-term training has been demonstrated the most effective for success rates in female candidates (Berkman, 2001). In fact, WFS made the following position statement, "Without the pre-training component, the use of any skill-dependent test will always advantage those who have in some way been pre-trained for the test, whether through prior firefighting experience, repeated unsuccessful attempts at the CPAT or comparable tests, specific personal training for the test, or experience with non-firefighting jobs or tasks involving similar skills (WFS, 2002)." GFRD did provide a CPAT Academy for the last two hiring processes.

However, the actual test equipment was not available and the CPAT Academy candidates were resigned to practice on makeshift equipment with a close proximity of the actual testing stations.

Last, the CPAT Manual recommends the inclusion of training programs. A literature review finds departments offering various approaches to CPAT exposure. The Indianapolis Fire Department (IFD) allowed 40 hours of practice time at the IFD's CPAT facility. The CPAT video ran continuous and candidates were able to consult with IFD Staff at all times. One practice session was allowed for each applicant on the actual CPAT equipment. Additionally, each candidate was able to consult individually with IFD Staff (Muegge, C., Zollinger, T., Saywell, R., Moffatt, S., Hanify, T., Dezelan, L., 2002).

The New York City Fire Department Recruitment and Diversity Initiative Unit formed an alliance with the New York Sports Clubs (NYSC) to allow 16,700 candidates who passed the written examination access to their sports clubs for physical fitness. The health club chain granted access to all 85 NYSC clubs during a period prior to CPAT testing. New York City currently utilizes a rank ordered physical ability entry exam in the hiring process. In addition to offering free access to NYSC clubs, the New York City Fire Department developed a special physical fitness program for women to prepare for the physical exam. The classes were two hours in length and allowed female candidates to train on testing equipment. The 26 classes included a weighted vest, and eight tasks (Agoglia, J., 2003).

Recruits in the Phoenix Fire Department academy are trained for the CPAT. CPAT training includes exercise science, flexibility and injury prevention to promote a lifelong habit of fitness and exercise (Dukart, 2002). As stated above, GFRD provided a CPAT Academy to all candidates free of charge.

None of the articles reviewed discussed qualifications of Staff involved in the fitness training. Perhaps an additional requirement of fire departments throughout America should require the Peer Fitness Trainer (PFT) Certification Program for Staff involved in fitness training for candidates. The IAFC, IAFF and the American Council on Exercise released guidelines for PFT certification. PFT certification trains Staff, "...to design and implement fitness programs, improve the wellness and fitness of their uniformed department members, assist in the physical training of recruits and assist the community in achieving wellness and fitness." Certification includes a five-day workshop culminating in a 115-question exam. PFT may improve fitness prescriptions for candidates and improve CPAT outcomes (IAFC, 2003, May 01). Another option for an inexpensive qualified instructor is to recruit interns or graduate students from the university (Atkinson, W., 2003). In GFRD case, this would clearly be the University of Florida. Dr. Steven Loy, Los Angeles Fire Department, states, "I believe there's benefit to having a wellness coordinator outside of the fire service. Establishing the wellness program is my job. I'm not a member of the fire department, and the wellness program is not just another one of my added-on responsibilities (Loy, S., 2001)."

PROCEDURES

Literary Review

A review of literature included fitness and CPAT articles from January 2000 until June 2003. Magazines included Fire Chief, Firehouse, Fire Engineering, On Scene, Women in the Fire Service Quarterly and Fire Rescue. The literature review was used for comparative use on results of the CPAT at GFRD compared to other departments. Second, the literature review gave the Author insight on fitness initiatives throughout the country in the fire service.

Hiring Process

Recruitment efforts included two months of advertising in various mediums. Two orientation processes were held at local schools outlying the entire process and exact timeline. Candidates were invited to sign up for CPAT Academy sessions, free of charge to the candidates. During the two-month posting, several GFRD members spoke at local churches and gyms. Third, GFRD members handed out brochures to pivotal community members at attempts to target specific protected groups.

A meeting was established between the University of Florida intern, Luis Iglesias, the Author, Training Chief and CPAT Staff. Collectively, the members agreed which parameters to track during the CPAT Academy and posed potential research questions to be garnered. The CPAT Academy duration was six weeks in duration, voluntary and free to candidates. Seventy-four candidates signed up for the CPAT Academy during the six-week duration. Only candidates who successfully passed the written examination are included in the CPAT Academy spreadsheet.

GFRD had 614 non-certified candidates make a written application for hiring, 155 certified candidates. On written examination day, 103 non-certified candidates tested, 30 certified candidates. Unfortunately, failure of the written examination narrowed the field to 42 non-certified candidates and 23 certified candidates, for a total of 65. One candidate did not report to the CPAT test and therefore GFRD CPAT tested 64 candidates.

Personal Interview

The City of Gainesville has an excellent Wellness program. Our wellness program, *LifeQuest,* has been in place since 1992. As such, we have a full time dietician and numerous wellness and fitness interns from the University of Florida. The Author interviewed two of the interns. Susan Wallace has a Masters in Exercise Science and is a Certified Strength and Fitness Trainer. Ms. Wallace was interviewed and offered seven potential questions to be completed by the candidates in the survey. The Author refined the questions Ms. Wallace suggested prior to survey distribution.

Mr. Gary Porter has a Masters in Science and is a certified and licensed Athletic Trainer. The Author interviewed Mr. Porter before and after the GFRD CPAT process. Mr. Porter suggested parameters to include in the testing process and suggested a further study with uncertified candidates to establish an accurate CPAT passing time and training requirements for uncertified candidates. (Although this is beyond the scope of the paper, Mr. Porter's suggestions warrant further examination by the International Association of Fire Chiefs and International Association of Firefighters).

The Author noticed some trends when examining some of the preliminary data. When interviewing Mr. Porter, the Author asked, “What is the recognized time frame for a physical training program to have measurable impact on the outcome?” Mr. Porter stated the minimum recognized standard is six to eight weeks (Personal interview, May 08, 2003).

Survey

A survey was developed by the Author to ascertain information for research questions one, two, three, four and five. All candidates who completed the GFRD CPAT testing May 03-04, 2003, completed the survey (Appendix C).

Population

103 non-certified candidates and 30 certified firefighter candidates completed the written examination. Forty-two non-certified and twenty-three certified passed the written component. With one noted exception, all certified and non-certified candidates who passed the written candidate examination on May 03, 2003 progressed to the CPAT component of the hiring process. All candidates were required to complete a survey prior to CPAT administration. Candidates were instructed that survey answers did not impact hiring decisions in any manner.

Limitations and Assumptions

The Author's intent was to have a higher population for evaluative purposes. Unfortunately, the number of candidates who reported for the written examination was disappointing. Second, the number of candidates with a successful written examination further narrowed the population of candidates able to proceed to CPAT testing. Therefore, the number of candidates completing the survey was smaller than the Author anticipated. The Author must assume all respondents to the survey answered questions one through six honestly.

RESULTS

Research Questions Answered

Question 1. What are the pass/ fail rates of Candidates taking the CPAT? The total pass rate of candidates completing the GFRD CPAT test May 03-05, 2003 was 85.94%. Total percent of candidates with a time greater than 10:20, or a fail rate, was 14.06% (Appendix D, Column P).

Question 2. Do pass/ fail rates vary according to gender? Although the overall pass rate of candidates was 85.94%, only 20% of female candidates obtained a passing CPAT time. However, only 5 females attempted the CPAT, admittedly a small sample. Males faired better with a pass rate of 91.53%, 59 males attempted the CPAT (Appendix D, Column C).

Question 3. Did pass/ fail rates vary according to certified or non-certified firefighter status? Pass and fail rates did not vary much with respect to certified firefighter versus non-certified firefighter status. Non-certified candidates were slightly higher in failure rate. Non-certified firefighters had a fail rate of .08%, whereas certified firefighters had a fail rate of .06%. The gender mix of certified candidates unsuccessful in the CPAT test between males and females included 3 males and 1 female certified. The gender mix of non-certified candidates unsuccessful in the CPAT test between males and females included 3 females and 2 males (Appendix D, Column D).

Question 4. Does CPAT Academy attendance impact pass/ fail outcomes? The percentage of candidates who participated in the CPAT Academy and failed with respect to all testing candidates was .08%. The percentage of candidates who did not participate in the CPAT Academy, with respect to all testing candidates, and who also failed was .06%. Of the candidates failing, 55.55% of the failing candidates participated in the CPAT academy with respect to total number of failures (Appendix D, Column M).

Question 5. Does a candidate's fitness level impact pass/ fail outcomes? Candidates who self rated their fitness level as *very active* passed at a rate of 100%. Candidates who self rated their fitness level as *active* passed at a rate of 84.62%. Candidates who self rated their fitness level as *somewhat active* passed at a rate of 78.57%. No candidates self rated their fitness level as *not active* (Appendix D, Column K). Candidates who professed to work out five plus days per week, passed at a rate of 100%. Candidates who professed to work out three to five days per week, passed at a rate of 84.21%.

Candidates who professed to work out less than two days per week, passed at a rate of 80%. One candidate, who completed the survey, stated he worked out zero times per week, however, had a passing CPAT time (Appendix D, Column L).

Question 6. What is the financial impact of CPAT as our physical testing tool? The total CPAT Academy costs was $1686.60. The total CPAT testing costs was $14,149.58. Therefore, total cost for utilizing CPAT, as the GFRD ability-testing tool in May 2003 was $15,836.18 (Appendix F).

DISCUSSION

The results of this study showed an overall CPAT pass rate of 85.94%. The Indianapolis Fire Department (IFD) published very similar overall CPAT pass rates at 86.9% (Muegge. C., et al., 2002). However, the total number of IFD tested candidates was higher (206) with respect to the number of GFRD candidates (64) and may have a statistical impact (Muegge. C., et al., 2002).

Gender differences were apparent in the GFRD CPAT. Males passed at a rate of 91.53% who completed the GFRD CPAT. The IFD male pass rate was 90.00%. However, IFD did not have as large gender disparity as GFRD. Specifically, IFD had a 50% female pass rate compared to GFRD 20% female pass rate. Sixteen female candidates took the IFD CPAT test; eight candidates had a passing time (Muegge. C., et al., 2002). Five female candidates took the GFRD CPAT, only 1 candidate had a passing rate. Unfortunately, CPAT Academy attendance did not appear to affect female pass outcomes. The four female candidates who did not have a passing time all participated in the CPAT Academy. Only one female candidate who completed the

GFRD CPAT had a passing time, and she did not participate in the CPAT Academy. Further examination on the effectiveness and/ or continued use of the CPAT Academy is necessary.

No significant disparities were apparent in pass/ fail rates between certified firefighter candidates versus non-certified candidates. Non-certified candidates were slightly higher in failure rate. Non-certified firefighters had a fail rate of .08%, whereas certified firefighters had a fail rate of .06%. The gender mix of certified candidates unsuccessful in the CPAT test between males and females included 3 males and 1 female certified. The gender mix of non-certified candidates unsuccessful in the CPAT test between males and females included 3 females and 2 males (Appendix D, Column D). The Author found no published pass/ fail rates of CPAT testing comparing certified to non-certified testing. However, exposure to any skill, prior to a test should demonstrate an advantage.

"Without the pre-training component, the use of any skill dependent test will always advantage those who have in some way been pre-trained for the test...(WFS, May, 2002)." While the Author agrees with this statement, CPAT Academy attendance did not appear to impact pass/ fail outcomes in the GFRD 2003 process. Of the candidates failing, 55.55%, (5/9), of the failing candidates participated in the CPAT academy with respect to total number of failures (Appendix D, Column M). Given the high percentage of female candidates failing of the total failing aggregate (44.44%), CPAT Academy attendance and failure was skewed given the number of failing female candidates.

Despite the statistical discrepancy on the value of the CPAT Academy availability to all candidates, 100% of the candidates completing the CPAT Academy found the CPAT Academy valuable. All candidates participating in the CPAT Academy answered yes to the following question, “If you attended the CPAT Academy, do you think it will improve your performance?”

Resoundingly a candidate’s self-professed fitness level impacted pass/ fail outcomes in the GFRD 2003 process more than any other factor examined. Candidates who self rated their fitness level as *very active* passed at a rate of 100%. Candidates who self rated their fitness level as *active* passed at a rate of 84.62%. Candidates who self rated their fitness level as *somewhat active* passed at a rate of 78.57%. No candidates self rated their fitness level as *not active* (Appendix D, Column K). Candidates who professed to work out five plus days per week, passed at a rate of 100%. Candidates who professed to work out three to five days per week, passed at a rate of 84.21%. Candidates who professed to work out less than two days per week, passed at a rate of 80%. One candidate, who completed the survey, stated he worked out zero times per week, however, had a passing CPAT time (Appendix D, Column L). These results do differ from the IFD CPAT testing. IFD found, “...no significant difference in the CPAT test pass rate by level of reported physical activity...(Muegge. C., et al., 2002).”

The total 2003 financial cost for utilizing CPAT as our physical testing tool at GFRD was $15,836.18, including CPAT Academy costs. This cost represents 4.27% of

our entire departmental operational costs for the fiscal year. In fact, the entire Training Bureau Materials and Supplies budget is a paltry $4620.00. Subtracting the overtime and staff labor costs, the CPAT process consumed 27.58% of the Training Bureau Material and Supplies amount for the entire year. Additionally, we borrowed Ocala Fire Department's CPAT equipment at gratis, minimizing our costs further (Appendix F).

RECOMMENDATIONS

The results of this study showed an overall CPAT pass rate of 85.94%. However, GFRD only had 64 candidates take the CPAT including 23 certified firefighter candidates and 41 non-certified candidates. At application closing, GFRD had 769 candidates complete the application. However, only 133 of the 769 reported for the written examination. IFD reported most of the candidates returned to take the written examination (Muegge. C., et al., 2002). Although 133 reported for the written examination, only 65 passed the written examination. Therefore, only 65 candidates met requirements to progress to the next step, CPAT. Given the resources required for CPAT as the ability-testing tool, this low number is a failure. Although beyond the scope of the paper, GFRD must examine measures to improve candidate's success at each hiring step, including the CPAT.

Gender differences were apparent in the GFRD CPAT. The four female candidates who did not have a passing time all participated in the CPAT Academy. Examination of the CPAT Academy times reveals that generally candidates who had a passing time during the Academy had a passing time on the CPAT test day. The

average CPAT Academy time of passing candidates who participated was 10:01, whereas, on test day CPAT Academy candidates had an average time of 8:51. Therefore, passing candidates who participated in the CPAT Academy had an average of 1:10 minutes shorter time with respect to test day. The average CPAT Academy time of candidates who participated but had a failing time on test day had an average CPAT Academy time of 11:30. Subtracting the CPAT Academy passing candidates test day differential of 1:10 from the failing candidates, 11:30 average CPAT Academy time, surprisingly yields a passing time of 10:20 (Appendix E). In fact, two candidates exhausted time on the last component and several on the dummy drag (2nd to last component).

The recommendation to overcome gender disparity is fourfold. First, GFRD needs to purchase the actual CPAT equipment. Purchasing equipment would allow CPAT Academy to take place on the actual equipment and develop a comfort zone for candidates on testing day. Second, GFRD needs to establish a formal relationship with a Fitness Trainer from the University of Florida for a specific fitness prescription matched to the CPAT and candidates. Third, as Mr. Porter suggested, the CPAT Academy must be extended to a minimum of eight weeks for significant impact. Forth, GFRD must consider PFT certification for all Staff coaching in the CPAT Academy.

No significant disparities were apparent in pass/ fail rates between certified firefighter candidates versus non-certified candidates. Non-certified candidates were slightly higher in failure rate. Given the relatively small testing population (64), this may prove more statically significant in future hiring processes. However, CPAT equipment

purchase, fitness prescription and increasing training time should address any future disparities between certified and non-certified candidates.

"Without the pre-training component, the use of any skill dependent test will always advantage those who have in some way been pre-trained for the test...(WFS, May, 2002)." While the Author agrees with this statement, CPAT Academy attendance did not appear to impact pass/ fail outcomes in the GFRD 2003 process. Given the high percentage of female candidates failing of the total failing aggregate (44.44%), CPAT Academy attendance and test day failure may have been skewed given the number of failing female candidates.

Despite the statistical discrepancy on the value of the CPAT Academy availability to all candidates, 100% of the candidates completing the CPAT Academy found the CPAT Academy valuable. All candidates participating in the CPAT Academy answered yes to the following question, "If you attended the CPAT Academy, do you think it will improve your performance?" Test day CPAT candidates who participated in the CPAT Academy had an average of 1:10 minutes shorter time with respect to their CPAT Academy time. The average CPAT Academy time of candidates who participated but had a failing time on test day had an average CPAT Academy time of 11:30. Again, purchasing CPAT equipment, fitness prescription, and CPAT Academy extension should improve CPAT Academy pass/ fail rate outcomes.

A candidate's self-professed fitness level impacted pass/ fail outcomes in the GFRD 2003 process more than any other factor examined. Candidates who self rated

their fitness level as *very active* and who professed to work out five plus days per week, passed at a rate of 100%. Twenty-two candidates were hired in August 2003 based on the May 2003 hiring process. Therefore the recommendation is for the Fitness Trainer to interview all the new hired firefighters in order to create the fitness prescription for the GFRD CPAT. Obviously candidates who had a self-professed fitness level as *very active* and worked out five plus times per week had a fitness program that was successful. The Fitness Trainer can fold this information into the GFRD CPAT prescription.

Total cost for utilizing CPAT, as the GFRD ability-testing tool in May 2003 was $15,836.18, which comprises 4.27% of our departmental operational costs and 27.58% of the Training Bureau Material and Supplies amount for the entire year. Given the joint response of GFRD and ACFR, both agencies have a shared interest in candidate fitness. Currently, ACFR and GFRD do not share time and resources in hiring processes despite daily intervention and joint response. Establishing a hiring process partnership would allow shared costs, labor and pooling of resources. Additionally, each agency will benefit insuring the incoming fitness level of all new hired employees.

Candidate testing to insure fitness is an important step at improving wellness throughout the fire service. Fitness related firefighter deaths continue to be a lead killer every year. Therefore, GFRD needs to seek avenues suggested to improve the application, effectiveness and use of the CPAT within our department.

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APPENDIX A

APPENDIX A

TIME LINE PROCESS FOR CERTIFIED AND NON-CERTIFIED FIRE FIGHTER
GAINESVILLE FIRE DEPARTMENT
2002-2003

DATE/ TIME	ACTION
12/9/02 – 2/8/03	Advertising Radio Station: • 101.3 • FSFA.com, • FFCA.com • FAPEP.org • WFSI.ORG • IABPFF.ORG • Firehouse.com Mail orientation letters as candidates apply
1/11/03 Time: 9 am to 11am 11:30 am to 1:30 pm	Open house at Gainesville Fire Rescue
2/22/03 Time: 9am to 12 pm	Orientation at Lincoln Middle School Distribute • Hold Harmless form • Military Affidavit • Non-Smoking Affidavit • Physician Recommendation form • CPAT Practice guide • Written Test study material (Non-Certified)
2/25/03 Time: 6 pm to 9 pm	Orientation at Lincoln Middle School Distribute • Hold Harmless form • Military Affidavit • Non-Smoking Affidavit • Physician Recommendation form • CPAT Practice guide • Written Test study material (Non-Certified)
3/8/03	CPAT Academy begins
5/3/03 to 5/5/03	Certified and Non-Certified test

Time: 7:00 am to 3 pm	• Written Test (Institute of Public Safety) • CPAT (Alachua County Fairground) • BPAD (Gainesville Fire Rescue)
5/19/03 to 5/23/03	Grade BPAD
6/9/03 to 6/13/03	Non-Certified oral interview
6/23/0 to 6/27/03	Certified oral interview
8/4/03	Non-Certified start date
8/18/03	Fire College Begins for Non-Certified

APPENDIX B

APPENDIX B

Luis Iglesias will be assisting in the following Fitness & Wellness activities at **Gainesville Fire Rescue,** Spring semester 2003

1) Attend Firefighter orientation

2) Candidate Physical Abilities Test (CPAT) Academy. The CPAT is a rigorous physical abilities test designed to evaluate personal fitness while completing simulated firefighting tasks for individuals with no firefighting experience.

- Set up all fitness equipment prior to candidates arrival
- Monitor & record all candidates attendance
- Provide feedback on proper task completion to candidates
- Provide fitness activities to improve individual performance on components

3) Combat Challenge Physical Fitness Testing (CCPFT). The CCPFT is an annual rigorous physical abilities test designed to evaluate incumbent personal fitness for current employees.

- Set up all task stations prior to employees arrival
- Complete pre-testing and post testing cardiac evaluations (Blood pressure & Pulse)
- Monitor & record all employees pre-testing and post testing cardiac evaluations
- Monitor & record total fitness time & individual task station times
- Record all employees CCPFT times in Training Bureau database

Tentative Schedule

		Sub-Total
Saturday 09:00-11:00 or 11:30-13:30	January 11, 2003	02
Tuesday & Thursday 17:30-21:30	**March 4,6,11,13,18,20,25,27**	**40**
	April 1,3,8,10 (CPAT)	
Saturday 08:30-12:30	**March 8,15,22,29**	**24**
	April 5,12 (CPAT)	
Tuesday, Wednesday, Thursday	March 4,5,6,11,12,13 (CCPFT)	48

0800-1700 (Specific hours to be arranged)

APPENDIX C

APPENDIX C

The following instrument survey is being collected as part of a research project for the National Fire Academy Executive Fire Officer Program concerning the Candidate Physical Abilities Testing (CPAT).

Your completion of the survey DOES NOT AFFECT YOUR HIRING STATUS.

1. Have you taken the CPAT before? (Do not include the CPAT Academy)

Yes No

2. How many previous times have you completed the CPAT?

0 1- 2 3-5 5

3. Did you receive the CPAT Candidate Preparation Guide?

Yes No

4. What fitness training did you complete to prepare for the CPAT?

Followed CPAT Prep Guide CPAT Academy Personal Program None

5. How would you rate your current fitness level?

Not Active Somewhat Active Active Very Active

6. How many times per week do you exercise?

0 Days/Week < 2 Days /Week 3-5 days/Week 5 + Days/Week

7. Do you think fitness training for the CPAT was beneficial?

Yes No Not Applicable (Did not Train)

8. If you used the CPAT Candidate Preparation Guide, do you think it will improve your performance?

Yes No Not Applicable (Did Not Use)

9. If you attended the CPAT Academy, do you think it will improve your performance?

Yes No Not Applicable (Did Not Attend CPAT Academy)

10. If you used your own personal-training program, do you think it will improve your performance?

Yes No Not Applicable (Did Not Train)