

**COMPLETE THIS SECTION IF NEW CONTRACT**

For contract(s) in this request, answer applicable questions in each of the 4 major subject areas below in accordance with the Instructions for Preparation of Non-Competitive Procurement Form on the reverse side.

Request that negotiations be conducted only with Human Performance Systems for the product and/or services described herein.  
(Name of Person or Firm)

This is a request for      (One-Time Contractor Requisition #      copy attached) or      Term Agreement or  
     Delegate Agency (Check one). If Delegate Agency, this request is for "blanket approval" of all contracts within the      Create Physical Ability  
Test for CFD      (Attach List) Pre-Assigned Specification No.       
(Program Name) Pre-Assigned Contract No.     

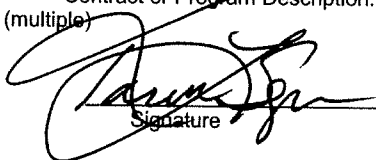
**COMPLETE THIS SECTION W/ AMENDMENT OR MODIFICATION TO CONTRACT**

Describe in detail the change in terms of dollars, time period, scope of services, etc., its relationship to the original contract and the specific reasons for the change. Indicate both the original and the adjusted contract amount and/or expiration date with this change, as applicable. Attach copy of all supporting documents. Request approval for a contract amendment or modification to the following:

Contract if:      Company or Agency Name:       
Specification if:      Contract or Program Description:       
Mod. #      (Attach List, (multiple))

Karen L. Sanger  
Originator Name

745-4196  
Telephone

  
Signature

Fire  
Department

8/14/06  
Date

Indicate SEE ATTACHED in each box below if additional space needed:

**PROCUREMENT HISTORY**

1. The physical ability exam is required for part of the hiring process for Firefighter EMT.
2. This is a continuation of previous procurement from this vendor. Human Performance Systems has conducted both the creation and administration of the physical ability exam since approximately 1997. Previously HPS has been a vendor through the Sole Source process.
3. HPS was part of a joint venture with a University based Physiologist.
4. Reviewed the Candidate Physical Ability's test, a nationally created exam, however it is specific to the title of firefighter only.
5. This is a one time request. Future requests will not be identical to this request.
6. Yes.

**ESTIMATED COST**

1. \$75,789.
2. \$75,789. is expected to be expended in 2006.
3. Pricing from the vendor was compared to the 1996 cost for a similar project.
4. DNA
5. This vendor bills at an hourly rate which is comparable to industry standards.

**SCHEDULE REQUIREMENTS**

1. The schedule is based on department needs.
2. DNA
3. At the release of exam scores the Fire Commissioner would like to announce and approximate date for the first candidate draw, which will require a firm date for performing the ability testing.
4. A delay due to competitive bidding would result in overtime, manpower gaps and emergency response.

**EXCLUSIVE OR UNIQUE CAPABILITY**

1. See attached.
2. Yes
3. This service has been provided to CFD in the past and other information is included in the documents provided in answer 1.
4. DNA
5. Their knowledge of the CFD and past experience with this project.
6. DNA

- 7. NO
- 8. DNA

**OTHER**

- 1. DNA
- 2. This vendor has been a certified WBE vendor with the City of Chicago, in the past and is in the process of renewing that certification.

APPROVED BY: \_\_\_\_\_  
DEPARTMENT HEAD OR DESIGNEE                      DATE                      BOARD CHAIRPERSON                      DATE

# Human Performance Systems - Work Plan/Physical Ability Test

The work plan for the project consists of four phases.

1. Project Planning
2. Job Analysis
3. Test Validation
4. Implementation and Documentation

## Project Planning

Joint planning between the City of Chicago, CFD, and HPS is essential for successful completion of the project. The Project Planning steps include:

1. Formulation of an oversight committee composed of the City of Chicago and CFD representatives. To ensure that the final test meets Chicago's needs, the representatives should include personnel from the fire department, civil service, and legal departments.
2. Obtain updated job materials for the FF/EMT position. Job information will be gathered from the existing job descriptions and training materials. Materials addressing the change in FF/EMT duties with the addition of the EMT function should be provided to HPS.
3. Obtain demographic information for the position. Demographic data will be requested to allow for development of sampling plans for job analysis.
4. Identify requirements for supplying personnel. To provide for efficient site visits and data collections, HPS will review the demographic data to ensure that stratified sampling (e.g., gender, age, ethnic group) is used for the data collection phase in the project.

## Job Analysis

The job analysis provides the information upon which fair and valid personnel decisions are based. It forms the basis for establishing the validity of selection standards and procedures. At a minimum, the job analysis provides a detailed description of the work (e.g., tasks, duties) to be performed, the abilities needed to perform the work, and the ergonomic parameters associated with the job tasks. The 1995 firefighter and 1999 paramedic job analyses conducted by HPS will serve as preliminary materials for the job analysis. The steps of the job analysis phase include:

1. Review job-related materials and job analyses. HPS will review the CFD materials and the HPS job analyses. The purpose of this review is to develop a preliminary FF/EMT task list and site visit data collection materials.
2. Site visits, incumbent interviews, and ergonomic data collection. The site visits will consist of interviews with FF/EMT incumbents, ride-alongs, and ergonomic data collection. The interviews will focus on whether the tasks on the preliminary list are accurate and complete, changes in job tasks and duties as of 2006, and equipment used across the department. The ergonomic assessment will collect information related to the weight of equipment, how the equipment is used, and the tasks performed with the equipment. Special attention will be paid to new equipment (e.g., 2000 and forward) in that equipment changes may impact the demands of the job. Further, the equipment used

in the current FF and Paramedic tests should be updated (e.g., hoses, high rise packs, quick response bags, defibrillators).

3. Task list review by CFD personnel. Modifications to the task list will be made by HPS based on information collected during the site visit. The revised task list will be sent to CFD for review. Based on input from CFD, the final version of the task list will be generated.
4. Development a job analysis questionnaire and distribution to a stratified sample of incumbents. A job analysis questionnaire will be developed by HPS that identifies the essential/critical job tasks. This questionnaire will include (1) instructions on how to complete the questionnaire, (2) background information sheet, (3) task list with rating scales, and (4) working conditions/ergonomic questions. A stratified sampling plan (gender, age, ethnic group), identifying the number of incumbents needed to complete the job analysis questionnaire, will be developed from the demographic information provided by CFD. Questionnaires will be distributed to a sample of incumbents for completion. HPS will work with CFD to ensure an acceptable response rate. Further, CFD will need to determine whether the firefighter completing the questionnaire will come to a central location.
5. Analyze the job analysis questionnaire results. Descriptive statistics (mean, standard deviation) will be computed for the task and supplemental questionnaire responses. An essential task criticality algorithm (e.g., frequency, importance) will be used to determine the essential job tasks. The reliability of the task ratings (i.e., inter rater reliability) will be determined. The analyses will also identify specific conditions that are present in the performance of essential job tasks.
6. Identify the required physical abilities. To determine these levels the **HPS Task Database** will be used to extract the ability ratings for each essential task. This is possible because this database contains ability data from the previous City of Chicago firefighter and paramedic job analyses, as well as other FF/FMT job analyses. The results of these analyses will yield a physical ability profile of the relative levels of abilities required to perform the physically demanding and essential tasks.

## **Test Validation**

If the 2006 job analysis results (essential tasks, abilities) indicate that the 2006 and 1995 firefighter positions are substantially similar and the physical EMS tasks completed are similar to the 1999 paramedic job analysis, the current firefighter and paramedic physical performance test would be valid for use with the current FF/EMT position. If the job analysis results are not similar, the firefighter, paramedic, or both tests are not valid. It is anticipated that the 2006 and 1995 and 1999 analyses will show that the positions are similar and this approach can be used. The validation steps are listed below.

1. Assess the similarity of the 1995, 1999, and 2006 job analysis results. HPS will compare the 1995 firefighter and 2006 job analyses to determine the similarity of essential tasks. This comparison will generate a percentage overlap in essential tasks between the two analyses. A high percentage overlap will indicate that the positions are similar. HPS will

also compare the 1995 and 2006 physical ability profiles to determine the similarity in physical demands for the two positions. Similarly, the 1999 paramedic job analysis for the physical aspects of the job will be compared to the 2006 job analysis and physical ability profiles.

2. Determine whether current firefighter and/or paramedic test is valid for the 2006 position. Based on the similarity assessments, HPS will determine whether the test components assess the required abilities in 2006 as they did in 1996 and 1999. This will allow for identification of the segments of each test that will be used in the 2006 test.
3. Compare equipment used in the firefighter and paramedic tests to the equipment currently used in the field. One of the current firefighter tests (Hose Drag & High Rise Pack Carry) use firefighting equipment. The hose dragged portion uses two 50 foot sections of 2  $V_2$ " hose. The high rise pack carried is made up of two 50 foot sections of 1  $\frac{3}{4}$ " hose rolled together in a donut roll. The Stair Climb test included in the paramedic test battery uses a quick response bag (19 lbs.) and a MRL defibrillator (18 lbs.). HPS will compare this equipment to the current equipment used in the field and determine whether the test equipment needs to be changed. If the equipment is the same, no changes to the test are needed. If the equipment is different, the test equipment will need to be changed and further steps completed. At present it *appears* that the *donut* roll and the MRL are no longer used by CFD and have been replaced with other equipment.

If test equipment needs to be changed, new test equipment needs to be identified. HPS and CFD will identify the most common hose sizes, high rise packs, and EMT equipment used by CFD.

4. Test a sample of incumbents using the old and new test equipment. Since a change in test equipment may result in a change in test performance, a sample of incumbent FF/EMTs will need to be tested. For example, a sample of incumbents will complete the Hose Drag & High Rise Pack Carry and/or Stair Climb two times (once with the old equipment and once with the new equipment). These data will allow TIPS to compare test performance for both sets of equipment and, if needed, adjust the passing score to reflect test performance differences due to the new equipment.
5. Develop combined test scoring scheme for the tests. Separate scoring schemes have been developed for the firefighter and paramedic tests using the original validation data. If the firefighter and paramedic tests are combined into one test, a new scoring scheme may need to be developed. A multiple hurdle approach could be used in which a candidate must pass the firefighter and paramedic tests in order to pass the entire test battery. The multiple hurdle approach would use the existing scoring schemes for both tests. If a compensatory model is used in which all tests are combined into a single score, a new scoring scheme will to be developed. The scoring approach will be discussed with CFD.

## Implementation and Documentation

The implementation and documentation steps included in this phase are listed below.

1. Update/develop test manual. HPS will update the current test manuals to ensure that the documentation accurately reflects the FF/EMT test.
2. Demonstrate test and test procedures to CFD. Although CFD does not administer the firefighter or paramedic physical performance tests, it is important that CFD personnel are knowledgeable about the tests and how they are administered. HPS will conduct a seminar to demonstrate the FF/EMT test to CFD personnel.
3. Develop DVD of the FF/EMT test. HPS will assist CFD in developing two DVDs for the FF/EMT test. The first DVD will be similar to the current tape for the firefighter test and will include information about the test and how to prepare for the test. The second DVD will be a shorter version of the first DVD and will include basically the test instruction. This second DVD will be shown to candidates as an introduction on the day of testing.
4. Generate candidate preparation materials. HPS will generate materials that describe each of the individual tests in the FF/EMT test battery as well as how these tests are linked to FF/EMT job tasks, how to train for each test, and what to do on the day of testing.
5. Final report. A final report will be generated which describes the activities and accomplishments during specific phases of the project. The final report will document the procedures and methods used to conduct the job analysis as well as the validation of the FF/EMT test. The report will conform to the Federal Uniform Guidelines and professional standards.

## Project Timeline

Completion of the project and each phase in the time projected will be dependent upon CFD's responsiveness to data collection requests. The timeline to complete each project phase (in months) are listed below.

	Time to Complete (months)
1. Project Planning	0.5
2. Job Analysis	2.5
3. Test Validation	1.5
4. Implementation and Documentation	1.0

## Project Costs

The project costs include costs in terms of labor, other direct costs (e.g., keypunching, postage, photocopy, telephone, travel) to conduct the project. The cost for producing the DVD that corresponds to the test is presented separately. This quotation includes data that shall not be disclosed outside of the City of Chicago and shall not be duplicated, used, or disclosed in whole

or part for any purposes other than to evaluate this proposal. The time and validity of this offer is 60 days. The total project cost for the combination of current tests is \$75,789.00.

### **DVD Production Costs**

The costs for HPS to produce two DVDs include costs in terms of labor and other direct costs (e.g., postage, photocopy, telephone, travel). The cost was generated assuming that CFD equipment and personnel will be used to tape and edit the DVDs. In addition, the costs for actors and narrators are not included. This quotation includes data that shall not be disclosed outside of the City of Chicago and shall not be duplicated, used, or disclosed in whole or part for any purposes other than to evaluate this proposal. The time and validity of this offer is 60 days. The cost for producing two DVDs is \$25,525.00.

## **Current CFD Firefighter Physical Performance Tests**

The current CFD firefighter test consists of three tests (Arm Lift, Hose Drag & High Rise Pack Carry, and Arm Endurance). This test was developed and validated for CFD by HPS in 1995.

### **Arm Lift**

The Arm Lift test assesses upper body strength. The candidate stands on a platform and holds a bar connected to a chain and load cell. On the command “Go”, the candidate exerts a maximal force in an upward direction with his/her arms for three seconds. A total of three trials are completed. The candidate's score is the average of the three trials.

### **Hose Drag & High Rise Pack Carry**

The Hose Drag & High Rise Pack Carry assesses upper and lower body muscular strength and endurance. The candidate stands on the starting line. On the command “Go”, the candidate lifts one end of a 2 1/2” uncharged hose (2— 50 foot sections) and drags the hose a total of 100 feet. Next, the candidate lifts a high rise pack (2 — 50 sections of 1 3/4” hose) and climbs three floors of stairs. The candidate then places the high rise pack down, picks up a second high rise pack and carries the pack down the stairs. Once the candidate sets the high rise pack on the floor, this test is completed. One trial is completed. The candidate's score is the time to complete the test.

### **Arm Endurance**

The Arm Endurance test assesses upper body muscular endurance and a level of anaerobic power. The candidate kneels in front of an arm ergometer with his/her hands on the pedals. On the command “Go”, the candidate begins pedaling and completes as many revolutions as possible in the two-minute time period. At the end of two minutes the candidate is told to stop. One trial is completed. The candidate's score is the total number of revolutions completed in two minutes.

### **Combined Firefighter Score**

The scores for the three tests are combined into a final score. The equation used to combine the scores is based on the regression equation used to validate the test battery. The passing score is 485.

## **Current CFD Paramedic Physical Performance Tests**

The current CFD firefighter test consists of three tests (Stair Climb, Leg Lift, and Arm Endurance). This test was developed and validated for CED by HPS in 1999.

### **Stair Climb**

The Stair Climb assesses lower body muscular endurance and a level of aerobic capacity. The candidate stands on the starting line, facing a stepping platform, and holding a quick response bag in one hand and a MRL defibrillator in the other. On the command “Go”, the candidate begins stepping up and over the platform. Once a crossing is completed, the candidate turns around and crosses the platform again. The candidate continues to stepping up and down across the stepping platform for four minutes, while carrying the equipment. At the end of four minutes the candidate is told to stop. One trial is completed. The candidate's score is the total number of



crossings completed in four minutes.

### **Leg Lift**

The Leg Lift test assesses lower body strength. The candidate stands on a platform and flexes at the hips, knees, and ankles until he/she is able to grasp a bar connected to a chain and load cell. On the command “Go”, the candidate exerts a maximal force in an upward direction with the legs for three seconds. A total of three trials are completed. The candidate’s score is the average of the three trials.

### **Arm Endurance**

The Arm Endurance test is the same as the test in the firefighter test.

### **Combined Paramedic Score**

The scores for the three tests are combined into a final score. The equation used to combine the scores is based on the regression equation used to validate the test battery. The passing score is 935.

**Human Performance Systems, Inc.**

# *Human Performance Systems, Inc.*

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June 2, 2006

Mr. Raymond Orozco  
Fire Commissioner

Ms. Adrienne Bryant  
Chicago Fire Department  
14<sup>th</sup> Floor  
10 W. 35<sup>th</sup> St  
Chicago, IL 60616  
[abryant@cityofchicago.org](mailto:abryant@cityofchicago.org)

Dear Commissioner Orozco & Ms. Bryant:

In response to your request, Human Performance Systems, Inc. (HPS) is submitting the steps, timeline, and cost to complete the steps needed to conduct a job analysis and validate a physical performance test for selection into the Chicago Fire Department (CFD) Firefighter/EMT (FF/EMT) position. The proposed project is described below and was generated in response to CFD's needs and timeline. The project will use job analysis data collected during this project and from previous CFD firefighter and paramedic projects to validate the current CFD firefighter and paramedic physical performance tests and generate a combined FF/EMT test and scoring protocol (e.g., Arm Lift, Arm Endurance, Hose Drag & High Rise Pack Carry, Stair Climb). Before describing the project steps, a brief description of the firefighter and paramedic tests are provided.

## **Current CFD Firefighter Physical Performance Tests**

The current CFD firefighter test consists of three tests (Arm Lift, Hose Drag & High Rise Pack Carry, and Arm Endurance). This test was developed and validated for CFD by HPS in 1995.

### **Arm Lift**

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### **Hose Drag & High Rise Pack Carry**

The Hose Drag & High Rise Pack Carry assesses upper and lower body muscular strength and endurance. The candidate stands on the starting line. On the command "Go", the candidate lifts one end of a 2 ½" uncharged hose (2 – 50 foot sections) and drags the hose a total of 100 feet. Next, the candidate lifts a high rise pack (2 – 50 sections of 1 ¾" hose) and climbs three floors of stairs. The candidate then places the high rise pack down, picks up a second high rise pack and carries the pack down the stairs. Once the candidate sets the high rise pack on the floor, this test is completed. One trial is completed. The candidate's score is the time to complete the test.

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## **Work Plan**

The work plan for the project consists of four phases.

1. Project Planning
2. Job Analysis
3. Test Validation
4. Implementation and Documentation

### **Project Planning**

Joint planning between the City of Chicago, CFD, and HPS is essential for successful completion of the project. The Project Planning steps include:

1. Formulation of an oversight committee composed of the City of Chicago and CFD representatives. To ensure that the final test meets Chicago's needs, the representatives should include personnel from the fire department, civil service, and legal departments.
2. Obtain updated job materials for the FF/EMT position. Job information will be gathered from the existing job descriptions and training materials. Materials addressing the change in FF/EMT duties with the addition of the EMT function should be provided to HPS.
3. Obtain demographic information for the position. Demographic data will be requested to allow for development of sampling plans for job analysis.
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3. Task list review by CFD personnel. Modifications to the task list will be made by HPS based on information collected during the site visit. The revised task list will be sent to CFD for review. Based on input from CFD, the final version of the task list will be generated.
4. Development a job analysis questionnaire and distribution to a stratified sample of incumbents. A job analysis questionnaire will be developed by HPS that identifies the essential/critical job tasks. This questionnaire will include (1) instructions on how to complete the questionnaire, (2) background information sheet, (3) task list with rating scales, and (4) working conditions/ergonomic questions. A stratified sampling plan (gender, age, ethnic group), identifying the number of incumbents needed to complete the job analysis questionnaire, will be developed from the demographic information provided by CFD. Questionnaires will be distributed to a sample of incumbents for completion. HPS will work with CFD to ensure an acceptable response rate. Further, CFD will need to determine whether the firefighter completing the questionnaire will come to a central location.
5. Analyze the job analysis questionnaire results. Descriptive statistics (mean, standard deviation) will be computed for the task and supplemental questionnaire responses. An essential task/criticality algorithm (e.g., frequency, importance) will be used to determine the essential job tasks. The reliability of the task ratings (i.e., interrater reliability) will be determined. The analyses will also identify specific conditions that are present in the performance of essential job tasks.
6. Identify the required physical abilities. To determine these levels the **HPS Task Database** will be used to extract the ability ratings for each essential task. This is possible because this data base contains ability data from the previous City of Chicago firefighter and paramedic job analyses, as well as other FF/EMT job analyses. The results of these analyses will yield a physical ability profile of the relative levels of abilities required to perform the physically demanding and essential tasks.

### **Test Validation**

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physical aspects of the job will be compared to the 2006 job analysis and physical ability profiles.

2. Determine whether current firefighter and/or paramedic test is valid for the 2006 position. Based on the similarity assessments, HPS will determine whether the test components assess the required abilities in 2006 as they did in 1996 and 1999. This will allow for identification of the segments of each test that will be used in the 2006 test.
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If test equipment needs to be changed, new test equipment needs to be identified. HPS and CFD will identify the most common hose sizes, high rise packs, and EMT equipment used by CFD.
4. Test a sample of incumbents using the old and new test equipment. Since a change in test equipment may result in a change in test performance, a sample of incumbent FF/EMTs will need to be tested. For example, a sample of incumbents will complete the Hose Drag & High Rise Pack Carry and/or Stair Climb two times (once with the old equipment and once with the new equipment). These data will allow HPS to compare test performance for both sets of equipment and, if needed, adjust the passing score to reflect test performance differences due to the new equipment.
5. Develop combined test scoring scheme for the tests. Separate scoring schemes have been developed for the firefighter and paramedic tests using the original validation data. If the firefighter and paramedic tests are combined into one test, a new scoring scheme may need to be developed. A multiple hurdle approach could be used in which a candidate must pass the firefighter and paramedic tests in order to pass the entire test battery. The multiple hurdle approach would use the existing scoring schemes for both tests. If a compensatory model is used in which all tests are combined into a single score, a new scoring scheme will to be developed. The scoring approach will be discussed with CFD.

### **Implementation and Documentation**

The implementation and documentation steps included in this phase are listed below.

1. Update/develop test manual. HPS will update the current test manuals to ensure that the documentation accurately reflects the FF/EMT test.
2. Demonstrate test and test procedures to CFD. Although CFD does not administer the firefighter or paramedic physical performance tests, it is important that CFD personnel are knowledgeable about the tests and how they are administered. HPS will conduct a seminar to demonstrate the FF/EMT test to CFD personnel.
3. Develop DVD of the FF/EMT test. HPS will assist CFD in developing two DVDs for the FF/EMT test. The first DVD will be similar to the current tape for the firefighter test and will include information about the test and how to prepare for the test. The second DVD will be a shorter version of the first DVD and will include basically the test instruction. This second DVD will be shown to candidates as an introduction on the day of testing.
4. Generate candidate preparation materials. HPS will generate materials that describe each of the individual tests in the FF/EMT test battery as well as how these tests are linked to FF/EMT job tasks, how to train for each test, and what to do on the day of testing.
5. Final report. A final report will be generated which describes the activities and accomplishments during specific phases of the project. The final report will document the procedures and methods used to conduct the job analysis as well as the validation of the FF/EMT test. The report will conform to the Federal Uniform Guidelines and professional standards.

## **Project Timeline**

Completion of the project and each phase in the time projected will be dependent upon CFD's responsiveness to data collection requests. The timeline to complete each project phase (in months) are listed below.

	Time to Complete (months)
1. Project Planning	0.5
2. Job Analysis	2.5
3. Test Validation	1.5
4. Implementation and Documentation	1.0

## **Project Costs**

The project costs include costs in terms of labor, other direct costs (e.g., keypunching, postage, photocopy, telephone, travel) to conduct the project. The cost for producing the DVD that corresponds to the test is presented separately. This quotation includes data that shall not be disclosed outside of the City of Chicago and shall not be duplicated, used, or disclosed in whole

or part for any purposes other than to evaluate this proposal. The time and validity of this offer is 60 days. The total project cost for the combination of current tests is \$75,789.00.

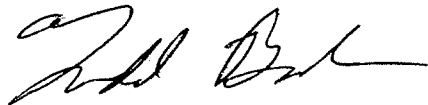
### **DVD Production Costs**

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The costs for HPS to produce two DVDs include costs in terms of labor and other direct costs (e.g., postage, photocopy, telephone, travel). The cost was generated assuming that CFD equipment and personnel will be used to tape and edit the DVDs. In addition, the costs for actors and narrators are not included. This quotation includes data that shall not be disclosed outside of the City of Chicago and shall not be duplicated, used, or disclosed in whole or part for any purposes other than to evaluate this proposal. The time and validity of this offer is 60 days. The cost for producing two DVDs is \$25,525.00.

If you need additional information or have any questions, please contact me (610) 530-8464 or Debby Gebhardt (301) 595-9509.

Sincerely,



Todd A. Baker, Ph.D.  
Research Scientist



## DEBORAH L. GEBHARDT, PH.D.

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### Education

Ph.D., Biomechanics and Anatomy, University of Maryland, 1979

M.Ed., Kinesiology, University of Arizona, 1971

B.S., Health and Physical Education, East Stroudsburg State College, 1969

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### Professional Activities and Awards

M. Scott Myers Award for Applied Research in the Workplace 2006 – Society for Industrial and Organizational Psychology

Innovations in Assessment Award 2003 – International Public Management Association – Assessment Council

Fellow, American College of Sports Medicine.

Fellow, Research Consortium of American Alliance of Health, Physical Education, Recreation, & Dance

Advisory Board – Ford Foundation – The Employment Justice Research Center Grant

American College of Sports Medicine, Chairperson for 20+ Professional Interest Groups (e.g., Occupational Physiology, Biomechanics)

Reviewer, Human Factors (Journal of Human Factors & Ergonomics Society), 1995-present

Reviewer, Human Performance, 2001 -present

Reviewer, Medicine & Science in Sport & Exercise, 2003-present

Reviewer, Journal of Applied Psychology, 2002 -present

Reviewer, Personnel Psychology, 2004 -present

National Fire Protection Association - 1500 Subcommittee for Development of Physical and Medical Standard for Fire Personnel.

Who's Who in American Colleges and Universities.

Red Cross Service Award.

Phi Alpha Epsilon (Academic Honorary).

Consultant to World Bank for man-machine interface problems, 1983.

American Cancer Society, 1985 - Present.

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### Experience

Human Performance Systems, Inc.

**Human Performance Systems, Inc. 1988 - present**

- President, 1988 - present

**University Research Corporation - ARRO Group, 1988**

(Note: ARRO Group was purchased from Response Analysis Corporation January 1, 1988.)

- Project Director

**Response Analysis Corporation, 1979 - 1988****Advanced Research Resources Organization (ARRO) Division**

- Vice President, 1986 - 1988
- Program Manager/Senior Research Scientist, 1985 - 1986
- Senior Research Scientist, 1981 - 1985
- Research Scientist, 1979 - 1981

**University of Maryland, 1976 - 1979**

- Graduate Assistant.

**Purdue University, 1973 - 1976**

- Instructor

**University of California, Berkeley, 1970 - 1973**

- Instructor

**Selected Publications**

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Sothmann, M. S., Gebhardt, D. L., Baker, T. A., Castello, G., & Sheppard, V. A. (2004). Performance requirement of physically strenuous occupations: Validating minimum standards for muscular strength and endurance. Ergonomics, 47(8), 864-875.

Gebhardt, D.L. (2000). Establishing performance standards. In S. Constable and B. Palmer (Eds.). The process of physical fitness standards development – State of the art report. Wright-Patterson AFB, OH: Human Systems Information Analysis Center (HSIAC-SOAR).

Myers, D. C., Gebhardt, D. L., Crump, C. E., & Fleishman, E. A. (1993). The dimensions of human physical performance: Factor analyses of strength, stamina, flexibility, and body composition measures. Human Performance, 6(4), 309-344.

Gebhardt, D. L. & Crump, C. E. (1990). Employee fitness and wellness programs in the workplace. American Psychologist, 45, 2, 262-272.

Gebhardt, D. L. (1990). Employee qualification test development and validation for operating and maintenance personnel in the natural gas industry. American Gas Association Proceedings, Los Angeles, CA.

Gebhardt, D. L. (1990). Evaluation of Jackson strength testing system for use in the workplace. In J. C. Hogan and R. T. Hogan (Eds.), Business and Industry Testing. Austin, TX: Pro-ED, Inc.

- Gebhardt, D. L. (1990). Evaluation of strength tests in the workplace setting. In D. J. Keyser and R. C. Sweetland (Eds.), Test Critiques. Austin, TX: Pro-ED, Inc.
- Gebhardt, D. L., Crump, C. E., & Schemmer, F. M. (1987). Physical performance criterion measures. In H.G. Baker and G.J. Laubs (Eds.), Proceedings of the Department of Defense/Educational Testing Service Conference on Job Performance Measurement Technologies (pp. 145-159), Washington, DC: Office of the Assistance Secretary of Defense.
- Gebhardt, D. L. (1987). Oral and performance tests for engine troubleshooting, repair, and maintenance jobs. In H.G. Baker and G.J. Laubs (Eds.), Proceedings of the Department of Defense/Educational Testing Service Conference on Job Performance Measurement Technologies (pp. 109-118). Washington, DC: Office of the Assistant Secretary of Defense.
- Fleishman, E. A., Gebhardt, D. L., & Hogan, J. C. (1986). The perception of physical effort in job tasks. In G. Borg and D. Ottoson (Eds.), The Perception of Exertion in Physical Work. Stockholm, Sweden: Macmillan Press LTD.
- Gebhardt, D. L. (1984). Center of mass displacement for linemen in the electric industry. Biomechanics, IX-A. Champaign, IL: Human Kinetics.
- Fleishman, E. A., Gebhardt, D. L., & Hogan, J. C. (1984). The measurement of effort. Ergonomics, 27(9), 947-954.
- Gebhardt, D. L., Myers, D. C., & Fleishman, E. A. (1984). Development of a job-related medical evaluation system. Medical Standards News, 1(6), 3-4.
- Gebhardt, D. L., Kaylor, P. L., & Arrighi, M. A. (1982). Instructors: Are they significant? Resources in Education, 17(5), 177.
- Gebhardt, D. L. (1981). Force and power production in the fencing lunge. Journal of Biomechanics, 14, 494.
- Hogan, J. C., Ogden, G. D., Gebhardt, D. L., & Fleishman, E. A. (1980). Reliability and validity of methods for evaluating perceived physical effort. Journal of Applied Psychology, 65, 672-679.

## Technical Reports

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**Note:** Technical reports are divided into three categories:  
 Job analysis, physical performance, and fitness/wellness  
 Medical and psychological standards and guidelines  
 Cognitive test development & validation & other HR interventions (e.g., job evaluation)

## Job Analysis, Physical Performance and Fitness/Wellness

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- Gebhardt, D. L. & Baker, T. A. (2006). Development and validation of medical guidelines for U.S. Customs and Border Protection agriculture specialist position. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (2006). Development and validation of cognitive, physical, and personality assessments for U.S. Foodservice selector and delivery driver positions. Beltsville, MD: Human Performance Systems, Inc.

- Baker, T. A. & Gebhardt, D. L. (2005). Job analysis and test revalidation for six Yellow Transportation positions. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (2005). Relationship of body mass index to injury and physical test variables for TSA screeners. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (2005). Development and validation of selection assessments for Energy Northwest nuclear security officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Curry J. E., & McCallum K. (2005). Development and validation of medical guidelines and physical performance tests for U. S. Senate Sergeant at Arms positions: Volume I & II. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (2004). Development and validation of physical performance tests for New Jersey State Police enlisted members: Job analysis report. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (2004). Validation of an aerobic capacity test for the selection of City of Norfolk police officers. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Vischulis, B, Thune, A., & Gebhardt, D. L. (2004). Job evaluation of selected Metropolitan Washington Airports Authority human resources positions. Beltsville, MD: Human Performance Systems, Inc.
- Cronin, B., Anderson, L, Baker, T. A., & Gebhardt, D. L. (2004). Job analysis for corrections officer positions in the State of Missouri. Fairfax, VA: Caliber Associates (joint project with Human Performance Systems, Inc.]
- Baker, T. A., Gebhardt, D. L., & Curry, J. E. (2004). Development and validation of physical performance tests for the selection and assessment of Southern California Edison nuclear armed security officers. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Curry, J. E. (2004). Revalidation of the physical performance test for Omaha Public Power District nuclear security officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Curry J. E., & McCallum K. L. (2004). Transportation security screener physical performance test and medical guidelines development and validation: Volume I: Job analysis. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (2003). Review of the South Carolina Department of Public Safety – Criminal Justice Academy Basic Law Enforcement Officer physical ability tests. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Cancialosi, C. (2003). Development and validation of a physical abilities test, medical guidelines, and psychological guidelines for the selection of Westchester County correction officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Job analysis and job descriptions for 23 management positions at 5 restaurant chains. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Development and validation of a physical abilities test, medical guidelines, and psychological guidelines for the selection of Commonwealth of Massachusetts direct service workers. Beltsville, MD: Human Performance Systems, Inc.

- Baker, T. A. & Gebhardt, D. L. (2002). Revalidation of physical performance tests for selection and retention of Duke Power Nuclear Security Officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Cancialosi, C. (2002). Development and validation of cognitive and physical performance tests for natural gas positions (Interim Report). Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (2002). Revalidation of physical performance tests for selection and retention of Duke Power Nuclear Security Officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (2002). Development and validation of physical performance tests and medical guidelines for Transportation Security Administration (TSA) positions. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Cancialosi, C. (2002). Transportability of a cognitive performance test for selection of UNIQEMA instrument/electrician workers. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Koeneke, K. (2001). Injury and physical performance tests score analysis of Yellow Freight System dockworker, driver, hostler, and mechanic positions. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Koeneke, K. M. (2001). Evaluation of the physical demands and risks associated with the Pennsylvania Board of Probation and Parole institutional parole agent position. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (2001). Utility of physical performance tests in reduction of days lost and injuries in railroad train service positions. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Koeneke, K. M., & Gebhardt, D. L. (2001). Job analysis for officer ranks and sworn assignments and review of the entry-level physical agility test for the City of Appleton police department. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (2001). Review and revision of the passing score for the candidate physical performance test for the selection of City of Lubbock fire fighters. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Koeneke, K.M., & Sheppard V. A. (2000). Transportability of physical performance test for selection of Empire City Subway conduit workers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Koeneke, K. (2000). Revalidation of cognitive and physical performance tests for selection of Duke Energy-Gas Transmission pipeliners. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Sheppard V. A. & Koeneke, K.M. (2000). Development and validation of medical guidelines for the Federal Bureau of Investigation Special Agent position and special assignments: Volume I: Job Analysis. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Leonard, K. (2000). Comparison of the firefighter job in the U.S. Air Force and Canadian Military Forces. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Sheppard, V. A., Gebhardt, D. L. & Leonard, K. (2000). Development and validation of physical performance test for selection of City of Lubbock police officers. Beltsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Leonard, K. (2000). Job analysis of PECO line worker position and evaluation of line

school training demands. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard V. A., Leonard, K. (1999). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent police officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard V. A., & Leonard, K. (1999). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent firefighters. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1999). Development and validation of physical performance tests for the selection and fitness assessment for uniformed members of the Massachusetts State Police. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent police officers. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent firefighters. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment for United States Postal Inspection Service candidate and incumbent postal inspectors. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of a physical performance test for the selection of City of Chicago paramedics. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Q-2 police officer physical performance test and medical guidelines development and validation report for the San Francisco Police Department. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1998). Development and validation of physical performance tests for BellSouth physically demanding jobs. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1998). Development and validation of physical performance tests for Bell Atlantic physically demanding jobs. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1997). Development of a pre-employment evaluation for selection of container equipment operator's task and physical abilities analysis. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (1997). Development and validation of a lashing physical performance test for the selection of casuals. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (1997). Review and validation of a physical evaluation for City of Alexandria firefighter incumbents and candidates. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., Tsacoumis, S., & Dugan, B. A. (1997). Physical abilities tests: Job analysis and recommendations. Alexandria, VA: Human Resources Research Organization.

- Goldberg, E., Gebhardt, D. L., & Baker, T. A. (1997). Q-2 police officer job analysis report for the San Francisco Police Department. Pleasant Hill, CA: Core Corporation & Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996). Development and validation of physical performance tests for BellSouth and NYNEX physically demanding jobs. Job Analysis-Interim Report. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Fleishman, E. A. (1996). Analysis of the 50-foot ladder raise for the City of San Francisco firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Tsacoumis, S. (1996). Transportability of physical performance tests for selection of Virginia State Troopers. Interim Report. Alexandria, VA: Human Resources Research Organization.
- Baker, T. A., & Gebhardt, D. L. (1995). Development and validation of physical firefighter evolution for Fairfax County incumbent firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Police Officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Deputy Sheriffs. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Animal and Game Wardens. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests for City of Chicago Firefighters. Volume 2: Job analysis. Hyattsville, MD: Human Performance Systems, Inc.
- Sothmann, M., Gebhardt, D. L., Baker, T. A., Costello, G., & Sheppard, V. A. (1995). Development and validation of physical performance tests for City of Chicago Firefighters. Volume 3: Validation of physical tests. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Sheppard, V. A., & Russell, P. J. (1995). Validation of a physical performance test battery for Omaha Public Power District security officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1995). Job analysis and physical performance test development for Massachusetts State Police. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Russell, P. J.. (1995). Revision of selection and incumbent tests for City of Chesapeake firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Russell, P. J.. (1995). Revision of selection and incumbent tests for City of Chesapeake police officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Russell, P. J.. (1995). Fitness questionnaire results for City of Chesapeake firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Russell, P. J. (1995). Fitness program for City of Danville police officers. Hyattsville, MD: Human Performance Systems, Inc.

- Baker, T. A., Gebhardt, D. L., & Russell, P. J. (1995). Job analysis for development of physical fitness program for City of Danville police officers. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Sheppard, V. A. (1995). Transportability of physical performance tests to coin office clerk and combination technician jobs. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (1995). Relationship of physical requirements of Stafford County emergency medical service duties to physical assessment procedures. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (1995). Development and validation of physical firefighter evaluation for Fairfax County firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Sheppard, V. A., Moore, J. R., & Jeanneret, P. R. (1995). Development and validation of physical performance tests for physically demanding jobs at the Metropolitan Washington Airports Authority. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Development and validation of physical performance tests for train service positions. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County police officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County deputy sheriffs. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County animal and game wardens. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks for Knoxville police officers and firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and linkages to medical conditions for Seattle firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Sheppard, V. A., & de Miranda, G. A. (1994). Development and validation of physical performance tests for emergency medical technicians and paramedics. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Russell, P. J. (1994). Revision of selection and incumbent testing for City of Chesapeake firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Russell, P. J. (1994). Revision of selection and incumbent testing for City of Chesapeake police officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Russell, P. J. (1994). Fitness questionnaire results for City of Chesapeake firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1994). Relationship of the physical requirements of Stafford County emergency medical service duties to physical assessment procedures. Hyattsville, MD: Human Performance Systems, Inc.



- Baker, T. A., & Gebhardt, D. L. (1994). Cost effectiveness of the trackman physical performance test and injury reduction. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1994). Review of physical ability test for selection of firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Russell, P. J. (1994). Job analysis for development of physical fitness program for City of Danville police officers. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Sheppard, V. A., Gebhardt, D. L., & de Miranda, G. A. (1994). Job demands questionnaire manual: Description of results. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). Knoxville Utilities Board job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). City of Knoxville job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). Knoxville Public Building Authority job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1993). Development and validation of physical performance tests for craft and other positions in the communications industry. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1992). Development and validation of physical performance tests dockworker, hostler, and driver jobs in the freight industry. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (1992). Development and validation of physical performance tests for trackmen. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Russell, P. J., & Sheppard, V. A. (1991). Relationship of physical requirements of airport firefighting duties to physical assessment and health promotion procedures. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Crump, C. (1991). Transportability of physical performance tests in the nuclear power industry. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Crump, C. (1990). Development of physical performance tests and medical guidelines for court security personnel. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Russell, P. J., Baker, T. A., & Crump, C. (1990). Revision of physical performance tests for City of Dallas firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Russell, P. J., & Gebhardt, D. L. (1990). Fitness program for City of Dallas Firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Russell, P. J. (1990). Development of physical performance tests for nuclear power security personnel. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Crump, C. E., Russell, P. J. & Frost, B. L. (1990). Development of physical performance tests and medical standards for Pennsylvania state police personnel. Bethesda, MD: University Research

Corporation.

Gebhardt, D. L. (1989). Evaluation of physical performance test validation studies in the electric industry. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Crump, C. E. (1988). Relationship of physical performance, age, and job performance for fire and police personnel. Bethesda, MD: Advanced Research Resources Organization.

Crump, C. E., Gebhardt, D. L., Mayer, K. L. (1988). Development of physical performance tests, medical guidelines, and a back training program for custodian personnel. Chevy Chase, MD: Advanced Research Resources Organization.

Gebhardt, D. L., Crump, C. E., & Frost B. L. (1987). Development and validation of physical performance tests, medical standards, and fitness programs for fire and law enforcement personnel. Bethesda, MD: Advanced Research Resources Organization.

Crump, C. E. & Gebhardt, D. L. (1987). A job-related physical fitness program for police officers in the Tricities. Bethesda, MD: Advanced Research Resources Organization.

Crump, C. E. & Gebhardt D. L. (1987). A job-related physical fitness program for firefighters in the Tricities. Bethesda, MD: Advanced Research Resources Organization.

Crump, C. E. & Gebhardt, D. L. (1987). A job-related physical fitness program for sheriff personnel. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L. (1986). Revision of physical ability scales. Bethesda, MD: Advanced Research Resources Organization.

Crump, C. E., Gebhardt, D. L., Guerette, P. J., Wertheimer, N. M. (1985). Development and validation of entry-level physical performance tests for Uniroyal Tire plants. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L., Crump, C. E., & Schemmer, F. M. (1985). Development and validation of physical performance tests, medical guidelines, and fitness programs for firefighters and police officers. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L., Schemmer, F. M., & Crump, C. E. (1985). Development and validation of selection tests for longshoremen and marine clerks. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L. & Crump, C. E. (1985). A job-related physical fitness program for police officers in the City of Knoxville. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L. & Crump, C. E. (1985). A job-related physical fitness program for firefighters in the City of Knoxville. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L. & Crump, C. E. (1984). Validation of physical performance selection tests for paramedics. Bethesda, MD: Advanced Research Resources Organization.

Gebhardt, D. L. & Crump, C. E. (1984). A job-related physical fitness program for paramedics in the City of Los Angeles. Bethesda, MD: Advanced Research Resources Organization.

Myers, D. C., Gebhardt, D. L., Crump, C. E., & Fleishman, E. A. (1984). Factor analysis of strength, cardiovascular endurance, flexibility, and body composition measures. Bethesda, MD: Advanced Research Resources Organization.

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### **Medical and Psychological Standards and Guidelines**

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Gebhardt, D. L. & Vischulis, B. E. (2004). Dissimulation: Will it impact responses to medical questionnaires. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. (2004). Psychological Guidelines for selection of Transportation Security Screeners. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. (2004). Comparison of Federal Flight Deck Officer physical and medical training requirements. Beltsville, MD: Human Performance Systems, Inc.

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- Gebhardt, D. L. & Sheppard, V. A. (1998). Medical guidelines for Police Officers in the City of San Francisco. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1997). Development of medical guidelines for 270+ jobs for the City of Dallas. Hyattsville, MD: Human Performance Systems, Inc.
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- Gebhardt, D. L. (1994). Medical guidelines for deputy sheriffs. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. (1994). Medical guidelines for animal and game wardens. Hyattsville, MD: Human Performance Systems, Inc.
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- Gebhardt, D. L., & Crump, C. E. (1988). Physician's manual for selection of firefighters in the City of Detroit. Bethesda, MD: Advanced Research Resources Organization, A Group of University Research Corporation.
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### **Cognitive Test Development & Validation & Other HR Interventions (e.g., job evaluation)**

Gebhardt, D. L. & Baker, T. A. (2005). Development and validation of substation electrician written and performance tests for Allegheny Power. Beltsville, MD: Human Performance Systems, Inc.

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Baker, T. A., Vischulis, B. E., Thune, A. & Gebhardt, D. L. (2004). Job evaluation of selected Metropolitan Washington Airports Authority human resources positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Curry J. E., & Gebhardt, D. L. (2004). Job analysis of exempt and non-exempt tasks performed for five management positions at Chicago Pizza and Brewery. Beltsville, MD: Human Performance Systems, Inc.

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Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Job analysis and job descriptions for 23 management positions at 5 restaurant chains. Beltsville, MD: Human Performance Systems, Inc.

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Baker, T. A. & Gebhardt, D. L. (2003). Development and validation of line worker tests for Allegheny Power: Job analysis. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2002). Job evaluation of the engineering positions at the Metropolitan Washington Airports Authority. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2001). Evaluation of procedures and policies for selecting U.S. probation officers. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (2001). Job evaluation of the lineman progression steps for Garland Power and Light. Beltsville, MD: Human Performance Systems, Inc.

- Baker, T. A. & Gebhardt, D. L. (2000). Review of step 3 and 4 tests for Garland Power and Light lineman progression. Beltsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1999). Review of step 5, 6, and journeyman tests for Garland Power and Light lineman progression. Beltsville, MD: Human Performance Systems, Inc.
- Sheppard, V. A., & Gebhardt, D. L. (1998). Development and validation of the station attendant, field operator, welder, and equipment operator tests: Volume V. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1996). Identification of required knowledges, skills, and abilities for division analysts and comparison of job requirements with area analysts. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1996). Review of basic math and electrical theory tests for Garland Power and Light lineman progression. Hyattsville, MD: Human Performance Systems, Inc.
- Sheppard, V. A., & Gebhardt, D. L. (1995). Validation of technician test: Volume IV. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Sheppard, V. A. (1993). Validation of maintenance specialist test: Volume III. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Sheppard, V. A., & de Miranda, G. A. (1993). Job analysis for welder, field operator, and technician: Volume II. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (1992). Revision of the Operator cognitive test. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Sheppard, V. A. (1991). Job analysis for maintenance specialist, station attendant/main operator, and equipment operator: Volume I. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., & Gebhardt, D. L. (1991). Development of a cognitive selection test for material handler position. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., & Baker, T. A. (1991). Design of a material handler's job. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. (1990). Development and validation of an equipment operator test. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Mayer, K. L., & Johnson, P. M. (1988). Development and validation of oral trade and performance tests for operator, operator "A", and equipment analyst position. Bethesda, MD: Advanced Research Resources Organization.
- Gebhardt, D. L. & Johnson P. M. (1986). Development of oral trade and performance tests for clerks. Bethesda, MD: Advanced Research Resources Organization.
- Gebhardt, D. L., Jennings, M. C., & Sample, R. A. (1983). Development of oral trade and performance tests for maintenance mechanic/helper and fieldman. Bethesda, MD: Advanced Research Resources Organization.
- Gebhardt, D. L. & Sample, R. A. (1983). Maintenance mechanic/maintenance helper test. Bethesda, MD: Advanced Research Resources Organization.



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### Presentations

- Gebhardt, D. L. (2005) Arming pilots to defend the cockpit: Selection, training, & evaluation. Paper presented at the International Public Management Association – Assessment Council, Orlando, FL
- Gebhardt, D. L. (2004) Judgmental pistol shooting (JPS) – The final integration of training. Paper presented at the Society of Industrial and Organizational Psychology, Chicago, IL
- Gebhardt, D. L. (2004) Issues related to implementation of physical performance tests in a public safety setting. Paper presented at the Society of Industrial and Organizational Psychology, Chicago, IL
- Gebhardt, D. L. & Baker, T. A. (2004). Differences in physical demand between passenger checkpoint and checked baggage airport screener jobs. Paper presented at the American College of Sports Medicine, Indianapolis, IN.
- Gebhardt, D. L. (2003) Transportation Security Administration – Fact from the frontline. Paper presented at the Society of Industrial and Organizational Psychology, Orlando, FL
- Baker, T. A., & Gebhardt, D. L. (2003). Same test – different jobs: Developing tests to screen candidates for multiple positions. Paper presented at the 27th Annual IPMAAC Conference on Personnel Assessment, Baltimore Maryland.
- Gebhardt, D. L. & Baker, T. A. (2003) Selection of Airport Screeners. Paper presented at the International Personnel Management Association-Assessment Council, Baltimore, MD.
- Gebhardt, D. L. & Baker, T. A. (2003). Airport Security Screener selection test validation. Paper presented at the American College of Sports Medicine, San Francisco, CA.
- Gebhardt, D. L. & Baker, T. A. (2002) Reduction of occupational injuries. Paper presented at the International Personnel Management Association-Assessment Council, New Orleans, LA.
- Gebhardt, D. L. & Baker, T. A. (2002). Occupational physiology intervention in the railroad industry. Paper presented at the American College of Sports Medicine, St. Louis, MO.
- Gebhardt, D. L. (2002) Impact of physical performance tests on injury reduction and worker compensation costs. Paper presented at the Mid-Atlantic Personnel Assessment Council, Princeton, NJ.
- Gebhardt, D. L. & Baker, T. A. (2001) Reduction of worker compensation costs through the use of pre-employment physical testing. Symposium on Reduction of Occupational Injuries. Paper presented at the American College of Sports Medicine, Baltimore, MD.
- Gebhardt, D. L. (2000) Development of cut-scores for selection procedures. Paper presented at the Society of Industrial and Organizational Psychology, New Orleans, LA.
- Gebhardt, D. L. & Baker, T. A. (2000) Are women firefighters stronger than women in other physically demanding jobs. Paper presented at the American College of Sports Medicine, Indianapolis, IN.
- Sheppard, V. A., Baker, T. A., Gebhardt, D. L., & Leonard, K. M. (2000). Development and validation of a computer interactive test battery. Paper presented at the 24th Annual IPMAAC Conference on Personnel Assessment, Arlington Virginia.

- Gebhardt, D. L. (1999). Derivation of a job-related medical database. Paper presented at the Personnel Testing Council of Metropolitan Washington, Washington, DC.
- Gebhardt, D. L. (1999) Applying regression analysis and biomedical modeling to setting cut-scores or qualifying standards. Paper presented at the American College of Sports Medicine, Seattle, WA.
- Gebhardt, D. L. (1999) Using job-related medical criteria for selection of workers. Paper presented at the American College of Sports Medicine, Seattle, WA.
- Gebhardt, D. L. (1998) Reduction in costs through use of physical and medical screening procedures. Paper presented at the State of New Jersey Personnel Conference, Plainsboro, NJ.
- Gebhardt, D. L. (1998) Job task performance and physical abilities measurement. Paper presented at the American College of Sports Medicine, Orlando, FL.
- Gebhardt, D. L. (1997) Strategies for assessing physical abilities. Paper presented at the Mid-Atlantic Personnel Assessment Consortium, Baltimore, MD.
- Gebhardt, D. L., & Baker, T. A. (1997) Comparison of performance differences on standardized physiological tests for women in public safety and industrial jobs. Paper presented at the American College of Sports Medicine, Denver, CO.
- Gebhardt, D. L. (1997). Reduction in costs through use of physical and medical screening procedures. Paper presented at the Society of Industrial/Organizational Psychology, St. Louis, MO.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996) Performance difference in jobs with varying physical demands. Paper presented at the American College of Sports Medicine, Cincinnati, OH.
- Gebhardt, D. L. (1995). How to develop and validate physical performance tests for selection of law enforcement personnel. Invited paper presented at Regional (east coast) State Police Labor Relations Consortium, Frammingham, MA
- Gebhardt, D. L. (1995). Evaluation of women's physiological capacity in relation to job demands and performance levels. Symposium: Women in physically demanding jobs. Paper presented at the American College of Sports Medicine, Minneapolis, MN.
- Baker, T. A., Gebhardt, D. L., & Sheppard, V. A. (1995). Use of Job Demands Questionnaire results for disability-related decisions. Paper presented at the International Personnel Management Association Assessment Council, New Orleans, LA.
- Gebhardt, D. L. (1995). Impact of ADA on medical guidelines and physical testing. Paper presented at the Society of Industrial and Organizational Psychology, Orlando, FL.
- Gebhardt, D. L. (1995). Medical guidelines for selection and retention. Paper presented at the Personnel Testing Council of Metropolitan Washington, Washington, DC.
- Gebhardt, D. L. (1994). Use of physical performance tests in the selection process reduces occupational injuries. Paper presented at the International Personnel Management Association-Assessment Council, Charleston, SC.
- Gebhardt, D. L. & Baker, T. A. (1994). Reduction of occupational injuries in the railroad industry through the use of physical performance tests. Paper presented at the American College of Sports Medicine, Indianapolis, IN.
- Gebhardt, D. L. (1994). Implementation issues related to eliminating mandatory retirement of public safety

- personnel under the Age Discrimination in Employment Act. Paper presented at the Mid-Atlantic Personnel Assessment Council, Potomac, MD.
- Gebhardt, D. L. (1993). Utilizing physical performance testing to reduce occupational injuries, illnesses, and disabilities. Paper presented at the Preventing Occupational Injuries, Diseases, and Disability Conference, Tampa, FL.
- Gebhardt, D. L. (1993). Validation issues in developing physical performance standards. Paper presented at the American College of Sports Medicine, Seattle, WA.
- Gebhardt, D. L. (1993). Implementing the employment provisions of the Americans with Disabilities Act of 1990: From job analysis to policy issues. Invited workshop sponsored by Society of Industrial and Organizational Psychology, San Francisco, CA.
- Baker, T. A., & Gebhardt, D. L. (1993). Criterion-related and construct validity of a freight industry physical selection test. Paper presented at the American Psychological Society, Chicago, IL.
- Gebhardt, D. L. (1992). Developing and implementing physical performance tests: Overview of physiological and psychophysical aspects. Invited workshop sponsored by IPMA-AC and presented at the International Personnel Management Association Assessment Council, Baltimore, MD.
- Gebhardt, D. L. (1992). Age and public safety: Is mandatory retirement necessary? Paper presented at the Personnel Testing Council of Metropolitan Washington, Washington, DC.
- Gebhardt, D. L. (1992). Developing performance testing programs for physical abilities. Invited paper presented at the Measuring Job Competencies through Performance Testing Conference presented by Personnel Testing Council of Southern California, Newport Beach, CA.
- Gebhardt, D. L. & Crump, C. E. (1992). Validation of selection tests for longshoremen. Paper presented at the American College of Sports Medicine, Dallas, TX.
- Gebhardt, D. L. (1992). Employer strategies for prevention of worker's injuries. Paper presented at the Missouri State Human Resources Conference/Heartland Labor and Employment Institute, Kansas City, MO.
- Gebhardt, D. L. (1992). Development of physical performance assessments in the telecommunications industry. Paper presented at the Telecommunications Safety Conference, Nashville, TN.
- Gebhardt, D. L. (1992). Requirements for testing under the DOT guidelines: Test development and validation. Paper presented at the International Personnel Management Association Assessment Council Baltimore, MD.
- Gebhardt, D. L. & Crump, C. E. (1992). Transportability of tests for armed security personnel. Paper presented at the International Personnel Management Association Assessment Council, Baltimore, MD.
- Gebhardt, D. L. (1992). Conducting job analyses to comply with the Americans with Disabilities Act. Invited workshop presented at the Industrial/Organizational and Organizational/Behavior Graduate Student Conference, Roanoke, VA.
- Gebhardt, D. L. (1991). Americans with Disabilities Act of 1990: What is required for compliance. Invited speaker at the Health Issues Conference, Chicago, IL.
- Gebhardt, D. L. (1991). Impact of the Americans with Disabilities Act of 1990 on physical performance testing and medical evaluations. Invited paper sponsored by the Mid-Atlantic Personnel Assessment Consortium and presented at the International Personnel Management Association Assessment Council, Chicago, IL.

- Gebhardt, D. L. (1991). Employee qualification test development and validation. Invited paper presented at the Southern Gas Association, Nashville, TN.
- Gebhardt, D. L. (1991). Age, physical performance, and medical guidelines in the workplace. Paper presented at the American College of Sports Medicine, Orlando, FL.
- Gebhardt, D. L. (1991). Importance of ergonomic evaluation and job analysis in the development physical performance tests with respect to the Americans with Disabilities Act of 1990. Paper presented at the Sixth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.
- Gebhardt, D. L. (1991). Integration of physical and medical guidelines in evaluation of aging public safety employees. Paper presented at the Sixth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.
- Gebhardt, D. L. (1991). Americans with Disabilities Act--What is required for compliance in relation to physical performance tests and medical evaluations. Paper presented at the Labor Relations Symposium IV, Atlanta, GA.
- Gebhardt, D. L. (1990). Physical performance testing for selection and retention of workers in physically demanding jobs. Paper presented at the Defense Research Institute, Monterey, CA.
- Gebhardt, D. L. (1990). Innovative methods for cut score determination and injury prevention that improve the bottom line (\$). Paper presented at the International Personnel and Management Association - Assessment Council, San Diego, CA.
- Gebhardt, D. L. (1990). Validation of the force required to lift a patient-loaded gurney. Paper presented at the American College of Sports Medicine, Salt Lake City, UT.
- Gebhardt, D. L. (1990). Employee qualification test development and validation for operating and maintenance personnel in the natural gas industry. Invited paper presented at the American Gas Association Distribution/Transmission Conference, Los Angeles, CA.
- Gebhardt, D. L. (1989). Implementation of physical performance tests. Invited paper presented at the Edison Electric Institute - Test User's Conference, St. Louis, MO.
- Gebhardt, D. L. (1989). Development of medical standards for jobs with similar and dissimilar demands. Paper presented at the International Personnel and Management Association - Assessment Council, Orlando, FL.
- Gebhardt, D. L. & Crump, C. E. (1989). Recent developments in establishing medical and physical standards. Invited paper presented at the Mid-Atlantic Personnel Assessment Council, Washington, D.C.
- Gebhardt, D. L. & Crump, C. E. (1988). Application of medical standards/guidelines for municipalities. Invited paper presented at the Connecticut Conference of Municipalities, Cromwell, CT.
- Gebhardt, D. L. & Crump, C. E. (1988). Development of job-related medical standards and guidelines for selection, retention and light duty. Invited paper presented at The Bureau of National Affairs Conference on Employee Testing - Trends and Tactics, Washington, D.C.
- Gebhardt, D. L. (1988). Employer/employee interventions for controlling back injuries. Invited, paper presented at the National Maritime Safety Association, Hilton Head, SC.
- Gebhardt, D. L. & Crump, C. E. (1988). Job-related medical standards/guidelines for selection of applicants and evaluation of incumbent personnel. Paper presented at International Personnel Management

Association Assessment Council, Las Vegas, NV.

Crump, C. E. & Gebhardt, D. L. (1988). Validation of physical performance tests. Paper presented at International Personnel Management Association Assessment Council, Las Vegas, NV.

Crump, C. E. & Gebhardt, D. L. (1987). Reduction of back injuries and worker compensation costs in the work environment. Invited, paper presented at Risk Management Pool Service Program of the National League of Cities Conference, Washington, D.C.

Gebhardt, D. L. (1987). Oral and performance tests for engine troubleshooting, repair, and maintenance. Paper presented at DOD/ETS Job Performance Measurement Technologies Conference, San Diego, CA.

Gebhardt, D. L., Crump, C. E., & Schemmer, F. M. (1987). Physical performance criterion measures. Paper presented at DOD/ETS Job Performance Measurement Technologies Conference, San Diego, CA.

Fleishman, E. A. & Gebhardt, D. L. (1985). Perception of physical effort in job tasks. Paper presented at Wenner-Gien International Symposium, Stockholm, Sweden.

Gebhardt, D. L. (1983). Physician's manual for pre-employment selection in physically demanding jobs. Paper presented at the Society of Behavioral Medicine Fourth Annual Scientific Sessions, Baltimore, MD.

Gebhardt, D. L. (1983). Advances in the development of job-related pre-employment medical standards. Paper presented at the American Psychological Association, Anaheim, California.

Gebhardt, D. L. (1983). Center of mass displacement for lineman in the electric industry. Paper presented at the International Society of Biomechanics, Waterloo, Canada.

Gebhardt, D. L., Phillips, S. J., & Grikis, J. (1983). Evaluation of elite flop jumpers and their performances. Paper presented at the American Alliance of Health, Physical Education, Recreation, and Dance, National Convention, Minneapolis, Minnesota.

Gebhardt, D. L. (1982). The development of medical standards for the work place. Paper presented at the Personnel Testing Council of Washington, Washington, D.C.

Gebhardt, D. L. (1982). Medical standards for physically demanding jobs. Paper presented at the Michigan Industrial Psychologist Meeting, Detroit, Michigan.

Gebhardt, D. L. (1981). Assessment of the physical requirements of jobs. Paper presented at the Southwest Management Conference, Houston, Texas.

Gebhardt, D. L. (1981). Physician's manual for pre-employment selection in physically demanding jobs. Paper presented at the International Personnel Management Association Assessment Council Annual Conference, Denver, Colorado.

Gebhardt, D. L. (1981). The integration of women in jobs with high physical demands. Paper presented at the Maryland Medical and Chirurgical Conference, "Medicine and Industry: A Cooperative Effort," Baltimore, Maryland.

Gebhardt, D. L. (1981). Physical demands assessment in selected jobs. Paper presented at the International Personnel Management Association Seminar, Washington, D.C.

Gebhardt, D. L. (1980). Kinematic analysis of the fencing lunge. Paper presented at the Mid-Atlantic meeting of American College of Sports Medicine.

Gebhardt, D. L. (1980). Biomechanics in the industrial sector. Seminar presented at University of

California, Berkeley.

Gebhardt, D. L. (1980). Center of mass path and stride length in the fencing lunge. AAHPERD Paper presented to Research Section, National Convention, Detroit, Michigan.

Gebhardt, D. L. (1980). Force and power production in the fencing lunge. Paper presented at the meeting of the American Society of Biomechanics, Burlington, Vermont.

### **Professional Memberships**

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American College of Sports Medicine--Fellow Status.  
Society of Industrial/Organizational Psychology  
International Personnel Management Association-Assessment Council.  
American Society of Biomechanics.  
Personnel Testing Council of Metropolitan of Washington.  
American Psychological Society  
American Alliance of Health, Physical Education, Recreation, and Dance (AAHPERD)--Fellow status  
Mid-Atlantic Regional Chapter - American College of Sports Medicine.

### **Litigation Experience**

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Served as expert witness in Title VII litigation and arbitrations for private (e.g., Detroit Edison) and public (e.g., State of New Jersey) sector clients and for the Department of Justice.

## Todd Baker, PH.D.

### Education

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Ph.D., Industrial/Organizational Psychology, Old Dominion University, 1989.

M.S., Psychology, Old Dominion University, 1986.

B.A., Psychology, The Johns Hopkins University, 1984.

### Professional Activities and Awards

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M. Scott Myers Award for Applied Research in the Workplace 2006 – Society for Industrial and Organizational Psychology

Innovations in Assessment Award 2003 – International Public Management Association – Assessment Council

U.S. Army Research Institute Performance Cash Award 1990.

Self Directed Research Assistant, Old Dominion University 1986 - 1989.

President of the Graduate Association of Psychology Students 1987.

Johns Hopkins Fellowship Grant, The Johns Hopkins University 1980-1983.

### Experience

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Human Performance Systems, Inc. 1990 - present

- Senior Research Scientist 2004-present
- Research Scientist, 1994 –2003
- Associate Research Scientist, 1990 – 1994

U.S. Army Research Institute for the Social and Behavioral Sciences, 1989 - 1990

- Research Psychologist, 1989 - 1990

Battelle Columbus Laboratories, 1988 - 1989

- Research Assistant, 1988 – 1989

Sentara Health System, Inc., 1988 - 1989

- Personnel Consultant, 1988 - 1989

BellSouth Corporation, 1987

- Intern, 1987

Universal Energy Systems, 1985 - 1987

- Research Assistant, 1985 - 1987

Old Dominion University, 1986 - 1989

- Instructor, 1986 - 1989

Human Performance Systems, Inc.

## Publications

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Sothmann, M. S., Gebhardt, D. L., Baker, T. A., Kastello, G. M., & Sheppard, V. A. (2004). Performance requirements of physically strenuous occupations: Validating minimum standards for muscular strength and endurance. *Ergonomics*, 47 (8), 864-875.

## Technical Reports

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**Note:** Technical reports are divided into three categories:  
Job analysis, physical performance, and fitness/wellness  
Medical and psychological standards and guidelines  
Cognitive test development & validation & other HR interventions (e.g., job evaluation)

## Job Analysis, Physical Performance and Fitness/Wellness

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Gebhardt, D. L. & Baker, T. A. (2006). Development and validation of medical guidelines for U.S. Customs and Border Protection agriculture specialist position. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2006). Development and validation of cognitive, physical, and personality assessments for U.S. Foodservice selector and delivery driver positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2005). Job analysis and test revalidation for six Yellow Transportation positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2005). Relationship of body mass index to injury and physical test variables for TSA screeners. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (2005). Development and validation of selection assessments for Energy Northwest nuclear security officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Curry J. E., & McCallum K. (2005). Development and validation of medical guidelines and physical performance tests for U. S. Senate Sergeant at Arms positions: Volume I & II. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2004). Development and validation of physical performance tests for New Jersey State Police enlisted members: Job analysis report. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2004). Validation of an aerobic capacity test for the selection of City of Norfolk police officers. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Viscchulis, B, Thune, A., & Gebhardt, D. L. (2004). Job evaluation of selected Metropolitan Washington Airports Authority human resources positions. Beltsville, MD: Human Performance Systems, Inc.

Cronin, B., Anderson, L, Baker, T. A., & Gebhardt, D. L. (2004). Job analysis for corrections officer positions in the State of Missouri. Fairfax, VA: Caliber Associates (joint project with Human Performance

Human Performance Systems, Inc.



Systems, Inc.]

Baker, T. A., Gebhardt, D. L., & Curry, J. E. (2004). Development and validation of physical performance tests for the selection and assessment of Southern California Edison nuclear armed security officers. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Curry, J. E. (2004). Revalidation of the physical performance test for Omaha Public Power District nuclear security officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Curry J. E., & McCallum K. L. (2004). Transportation security screener physical performance test and medical guidelines development and validation: Volume I: Job analysis. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2003). Review of the South Carolina Department of Public Safety – Criminal Justice Academy Basic Law Enforcement Officer physical ability tests. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Cancialosi, C. (2003). Development and validation of a physical abilities test, medical guidelines, and psychological guidelines for the selection of Westchester County correction officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Job analysis and job descriptions for 23 management positions at 5 restaurant chains. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Development and validation of a physical abilities test, medical guidelines, and psychological guidelines for the selection of Commonwealth of Massachusetts direct service workers. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2002). Revalidation of physical performance tests for selection and retention of Duke Power Nuclear Security Officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Cancialosi, C. (2002). Development and validation of cognitive and physical performance tests for natural gas positions (Interim Report). Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2002). Revalidation of physical performance tests for selection and retention of Duke Power Nuclear Security Officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (2002). Development and validation of physical performance tests and medical guidelines for Transportation Security Administration (TSA) positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Koenke, K. (2001). Injury and physical performance tests score analysis of Yellow Freight System dockworker, driver, hostler, and mechanic positions. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Koenke, K. M. (2001). Evaluation of the physical demands and risks associated with the Pennsylvania Board of Probation and Parole institutional parole agent position. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (2001). Utility of physical performance tests in reduction of days lost and injuries in railroad train service positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Koenke, K. M., & Gebhardt, D. L. (2001). Job analysis for officer ranks and sworn assignments and review of the entry-level physical agility test for the City of Appleton police department.

Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2001). Review and revision of the passing score for the candidate physical performance test for the selection of City of Lubbock fire fighters. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Koenek, K.M., & Sheppard V. A. (2000). Transportability of physical performance test for selection of Empire City Subway conduit workers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard V. A. & Koenek, K.M. (2000). Development and validation of medical guidelines for the Federal Bureau of Investigation Special Agent position and special assignments: Volume I: Job Analysis. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., Gebhardt, D. L. & Leonard, K. (2000). Development and validation of physical performance test for selection of City of Lubbock police officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard V. A., Leonard, K. (1999). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent police officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard V. A., & Leonard, K. (1999). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent firefighters. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1999). Development and validation of physical performance tests for the selection and fitness assessment for uniformed members of the Massachusetts State Police. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent police officers. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment of City of Norfolk candidate and incumbent firefighters. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of physical performance tests for the selection and fitness assessment for United States Postal Inspection Service candidate and incumbent postal inspectors. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Development and validation of a physical performance test for the selection of City of Chicago paramedics. Interim Report. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard V. A. (1998). Q-2 police officer physical performance test and medical guidelines development and validation report for the San Francisco Police Department. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1998). Development and validation of physical performance tests for BellSouth physically demanding jobs. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1998). Development and validation of physical

- performance tests for Bell Atlantic physically demanding jobs. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1997). Development of a pre-employment evaluation for selection of container equipment operator's task and physical abilities analysis. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L. & Baker, T. A. (1997). Development and validation of a lashing physical performance test for the selection of casualls. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A. & Gebhardt, D. L. (1997). Review and validation of a physical evaluation for City of Alexandria firefighter incumbents and candidates. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., Tsacoumis, S., & Dugan, B. A. (1997). Physical agilities tests: Job analysis and recommendations. Alexandria, VA: Human Resources Research Organization.
- Goldberg, E., Gebhardt, D. L., & Baker, T. A. (1997). Q-2 police officer job analysis report for the San Francisco Police Department. Pleasant Hill, CA: Core Corporation & Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996). Development and validation of physical performance tests for BellSouth and NYNEX physically demanding jobs. Job Analysis-Interim Report. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Fleishman, E. A. (1996). Analysis of the 50-foot ladder raise for the City of San Francisco firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Baker, T. A., Gebhardt, D. L., & Tsacoumis, S. (1996). Transportability of physical performance tests for selection of Virginia State Troopers. Interim Report. Alexandria, VA: Human Resources Research Organization.
- Baker, T. A., & Gebhardt, D. L. (1995). Development and validation of physical firefighter evolution for Fairfax County incumbent firefighters. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Police Officers. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Deputy Sheriffs. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests and medical guidelines for Fairfax County Animal and Game Wardens. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1995). Development and validation of physical performance tests for City of Chicago Firefighters. Volume 2: Job analysis. Hyattsville, MD: Human Performance Systems, Inc.
- Sothmann, M., Gebhardt, D. L., Baker, T. A., Costello, G., & Sheppard, V. A. (1995). Development and validation of physical performance tests for City of Chicago Firefighters. Volume 3: Validation of physical tests. Hyattsville, MD: Human Performance Systems, Inc.
- Gebhardt, D. L., Baker, T. A., Sheppard, V. A., & Russell, P. J. (1995). Validation of a physical performance test battery for Omaha Public Power District security officers. Hyattsville, MD: Human

Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1995). Job analysis and physical performance test development for Massachusetts State Police. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Russell, P. J. (1995). Job analysis for development of physical fitness program for City of Danville police officers. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Sheppard, V. A. (1995). Transportability of physical performance tests to coin office clerk and combination technician jobs. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (1995). Relationship of physical requirements of Stafford County emergency medical service duties to physical assessment procedures. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (1995). Development and validation of physical firefighter evaluation for Fairfax County firefighters. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard, V. A., Moore, J. R., & Jeanneret, P. R. (1995). Development and validation of physical performance tests for physically demanding jobs at the Metropolitan Washington Airports Authority. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Development and validation of physical performance tests for train service positions. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County police officers. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County deputy sheriffs. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and required abilities for development of physical performance tests and medical guidelines for Fairfax County animal and game wardens. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks for Knoxville police officers and firefighters. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1994). Identification of essential tasks and linkages to medical conditions for Seattle firefighters. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard, V. A., & de Miranda, G. A. (1994). Development and validation of physical performance tests for emergency medical technicians and paramedics. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1994). Relationship of the physical requirements of Stafford County emergency medical service duties to physical assessment procedures. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1994). Cost effectiveness of the trackman physical performance test and injury reduction. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1994). Review of physical ability test for selection of firefighters.

Human Performance Systems, Inc.

Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Gebhardt, D. L., & Russell, P. J. (1994). Job analysis for development of physical fitness program for City of Danville police officers. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., Gebhardt, D. L., & de Miranda, G. A. (1994). Job demands questionnaire manual: Description of results. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). Knoxville Utilities Board job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). City of Knoxville job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (1994). Knoxville Public Building Authority job demands questionnaire response results and descriptions. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1993). Development and validation of physical performance tests for craft and other positions in the communications industry. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1992). Development and validation of physical performance tests dockworker, hostler, and driver jobs in the freight industry. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (1992). Development and validation of physical performance tests for trackmen. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Russell, P. J., & Sheppard, V. A. (1991). Relationship of physical requirements of airport firefighting duties to physical assessment and health promotion procedures. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Russell, P. J., Baker, T. A., & Crump, C. (1990). Revision of physical performance tests for City of Dallas firefighters. Hyattsville, MD: Human Performance Systems, Inc.

### **Medical and Psychological Standards and Guidelines**

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Gebhardt, D. L. & Baker, T. A. (2004). Development and validation of a pre-screening medical assessment questionnaire. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2003). Development and validation of psychological guidelines for selection of probation officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Development and validation of psychological guidelines for Westchester County probation officers. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., Sheppard, V. A., & Leonard, K. (2000). Development and validation of medical guidelines for the Federal Bureau of Investigations: Volume 2: Medical Guidelines Development. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1997). Development of medical guidelines for 270+ jobs for the City of Dallas. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996). Essential job tasks for City of Dallas jobs - Volume II. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996). Development of medical guidelines for United States Customs Service customs inspectors and canine enforcement officers. Hyattsville, MD: Human Performance Systems, Inc.

### **Cognitive Test Development & Validation & Other HR Interventions (e.g., job evaluation)**

Gebhardt, D. L. & Baker, T. A. (2005). Development and validation of substation electrician written and performance tests for Allegheny Power. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2005). Development and validation of line worker written and performance tests for Allegheny Power. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Vischulis, B. E., Thune, A. & Gebhardt, D. L. (2004). Job evaluation of selected Metropolitan Washington Airports Authority human resources positions. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Curry J. E., & Gebhardt, D. L. (2004). Job analysis of exempt and non-exempt tasks performed for five management positions at Chicago Pizza and Brewery. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2003). Development and validation of substation electrician tests for Allegheny Power: Job analysis. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., Baker, T. A., & Cancialosi, C. (2003). Job analysis and job descriptions for 23 management positions at 5 restaurant chains. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2003). Job analysis for the maitre d' position for Brinker International Maggiano's Concept. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2003). Development and validation of line worker tests for Allegheny Power: Job analysis. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2002). Job evaluation of the engineering positions at the Metropolitan Washington Airports Authority. Beltsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L. & Baker, T. A. (2001). Evaluation of procedures and policies for selecting U.S. probation officers. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., Sheppard, V. A., & Gebhardt, D. L. (2001). Job evaluation of the lineman progression steps for Garland Power and Light. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (2000). Review of step 3 and 4 tests for Garland Power and Light lineman progression. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1999). Review of step 5, 6, and journeyman tests for Garland Power and Light lineman progression. Beltsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1996). Identification of required knowledges, skills, and abilities for division analysts and comparison of job requirements with area analysts. Hyattsville, MD: Human Performance Systems, Inc.

Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1996). Review of basic math and electrical theory tests for Garland Power and Light lineman progression. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A. & Gebhardt, D. L. (1992). Revision of the Operator cognitive test. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A., & Gebhardt, D. L. (1991). Development of a cognitive selection test for material handler position. Hyattsville, MD: Human Performance Systems, Inc.

Gebhardt, D. L., & Baker, T. A. (1991). Design of a material handler's job. Hyattsville, MD: Human Performance Systems, Inc.

Baker, T. A. (1990). Potential geodemographic changes in soldiers' population distributions if separated from the Army. (ARI - Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Baker, T. A. (1990). An examination of the U.S. Army advertising attributes across youth, new recruit, and soldier samples (ARI - Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Baker, T. A. (1990). Recruiter and sales training in the military and civilian sector: A review. (ARI - Research Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Baker, T. A. (1990). Scale development for enlistment motivation items (ARI - Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Dickinson, T. L., Baker, T. A., & Salas, E. (1989). The influence of team and individual training in a task structured work situation: The assessment center process (NTSC Technical Report). Orlando, FL: Naval Training Systems Center.

Dickinson, T. L., Converse, S. A., Baker, T. A., & Salas, E. (1988). The influence of team and individual training in a task structured work situation (Interim NTSC Report). Orlando, FL: Naval Training Systems Center.

Baker, T. A. (1987). An examination of the personality tests utilized at AMPA. Atlanta, GA: BellSouth Corporation, Human Resource Research Unit.

## **Presentations**

---

Gebhardt, D. L. & Baker, T. A. (2004). Differences in physical demand between passenger checkpoint and checked baggage airport screener jobs. Paper presented at the American College of Sports Medicine, Indianapolis, IN.

Baker, T. A., & Gebhardt, D. L. (2003). Same test - different jobs: Developing tests to screen candidates for multiple positions. Paper presented at the 27th Annual IPMAAC Conference on Personnel Assessment, Baltimore Maryland.

Gebhardt, D. L. & Baker, T. A. (2003) Selection of Airport Screeners. Paper presented at the International Personnel Management Association-Assessment Council, Baltimore, MD.

Gebhardt, D. L. & Baker, T. A. (2003). Airport Security Screener selection test validation. Paper

presented at the American College of Sports Medicine, San Francisco, CA.

Gebhardt, D. L. & Baker, T. A. (2002) Reduction of occupational injuries. Paper presented at the International Personnel Management Association-Assessment Council, New Orleans, LA.

Gebhardt, D. L. & Baker, T. A. (2002). Occupational physiology intervention in the railroad industry. Paper presented at the American College of Sports Medicine, St. Louis, MO.

Gebhardt, D. L. & Baker, T.A. (2002) Impact of physical performance tests on injury reduction and worker compensation costs. Paper presented at the Mid-Atlantic Personnel Assessment Council, Princeton, NJ.

Baker, T. A. (2001). Revisiting cut scores: When your test doesn't make the cut. Paper presented at the Society of Industrial and Organizational Psychology, San Diego, CA.

Gebhardt, D. L. & Baker, T.A. (2001) Reduction of worker compensation costs through the use of pre-employment physical testing. Symposium on Reduction of Occupational Injuries. Paper presented at the American College of Sports Medicine, Baltimore, MD.

Gebhardt, D. L. & Baker, T.A. (2000) Are women firefighters stronger than women in other physically demanding jobs. Paper presented at the American College of Sports Medicine, Indianapolis, IN.

Sheppard, V. A., Baker, T. A., Gebhardt, D. L., & Leonard, K. M. (2000). Development and validation of a computer interactive test battery. Paper presented at the 24th Annual IPMAAC Conference on Personnel Assessment, Arlington Virginia.

Baker, T. A. (1999). Development and validation of a physical performance test and a point-value passing score for the selection of police officers. Paper presented at the 4th Annual New Jersey Department of Personnel Fall Conference, Plainsboro, NJ.

Baker, T. A. (1999). Development of alternative job analysis techniques for non-traditional jobs. Paper presented at the Society of Industrial and Organizational Psychology, Atlanta, GA.

Gebhardt, D. L., & Baker, T. A. (1997) Comparison of performance differences on standardized physiological tests for women in public safety and industrial jobs. Paper presented at the American College of Sports Medicine, Denver, CO.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996) Performance difference in jobs with varying physical demands. Paper presented at the American College of Sports Medicine, Cincinnati, OH.

Gebhardt, D. L., Baker, T. A., & Sheppard, V. A. (1996) Performance difference in jobs with varying physical demands. Paper presented at the American College of Sports Medicine, Cincinnati, OH.

Baker, T. A., Gebhardt, D. L., & Sheppard, V. A. (1995). Use of Job Demands Questionnaire results for disability-related decisions. Paper presented at the International Personnel Management Association Assessment Council, New Orleans, LA.

Gebhardt, D. L. & Baker, T. A. (1994) Reduction of occupational injuries in the railroad industry through the use of physical performance tests. Paper presented at the American College of Sports Medicine, Indianapolis, IN.

Baker, T. A. (1994). The utility of a physical test in reducing injury costs. Paper presented at the Society of Industrial and Organizational Psychology, Nashville, TN.

Baker, T. A., & Gebhardt, D. L. (1993). Criterion-related and construct validity of a freight industry



- physical selection test. Paper presented at the American Psychological Society, Chicago, IL.
- Baker, T. A. (1992). Using item analysis results and subject matter expert input to revise an existing operator test. Paper presented at the International Personnel Management Association Assessment Council, Baltimore, MD.
- Baker, T. A. (1991). The influence of team and individual and part-whole training on the accuracy of assessment center ratings. Paper presented at the Society for Industrial and Organizational Psychology, St. Louis, MO.
- Baker, T. A. (1990). Team and member training for the consensus meeting. Paper presented at the American Psychological Association, Boston, MA.
- Quinn, K. D., & Baker, T. A. (1990). Gender effects on the accuracy of assessment center ratings. Paper presented at the American Psychological Association, Boston, MA.
- Dickinson, T. L., & Baker, T. A. (1989). Training to improve rating accuracy: A meta-analysis. Paper presented at the American Psychological Association, New Orleans, LA.
- Baker, T. A. (1987). Construct validity of group discussion exercises in an assessment center. Paper presented at the American Psychological Association, New York.
- Baker, T. A., & Campbell, W. J. (1987). The composition of assessment center exercise ratings. Paper presented at the Industrial/Organizational and Organizational Behavior Graduate Student Conference, Knoxville, TN.
- Campbell, W. J., & Baker, T. A. (1987). Exercise effects in assessment center ratings. Paper presented at the Southeastern Psychological Association, Atlanta, GA.
- Baker, T. A., & Cesare, S. J. (1986). Assessment center validation: Can the ultimate strategy be attained? Paper presented at the Industrial/Organizational and Organizational Behavior Graduate Student Conference, Minneapolis, MN.
- Baker, T. A. (1986). A review of improper recruit entry: Utilizing communication and realistic job previews for the reduction of incongruent expectations. Paper presented at the Southeastern Psychological Association, Orlando, FL.
- Cesare, S. J., Tannenbaum, R. J., & Baker, T. A. (1986). An investigation of perceptions towards various types of handicaps. Paper presented at the Industrial/Organizational and Organizational Behavior Graduate Student Conference, Minneapolis, MN.
- Baker, T. A., & Gillen, H. B. (1985). Varied levels of intimacy and force and their effects on perceiving rape in dating situations. Paper presented at the Virginia Psychological Association, Charlottesville, VA.

### **Professional Memberships**

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Society for Industrial and Organizational Psychology  
International Public Management Association for Human Resources  
Personnel Testing Council of Metropolitan Washington  
American Psychological Society

### **Litigation Experience**

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Human Performance Systems, Inc.

Served as expert in selection and promotion test litigation and Fair Labor Standards Act executive exemption.