

# Fire Service Selection in the New Millennium

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CWH Management Solutions

June 21, 2005

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# History of Firefighter Selection

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Whoever is Available - Historical

The Bravest and the Strongest – 1900's (Physical Ability)

The Smartest – 1960's (IQ Testing)

Well Rounded Leaders – Today (MQ Testing)

# Today's Firefighter

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- Is physically fit
- Is cognitively, emotionally, and socially intelligent
- Is flexible and can adapt to change
- Is motivated to do a variety of routine and heroic jobs
- Is a leader – can make independent & good decisions



# How Do We Hire Today's Firefighter?

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# Selection in the New Millennium

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- Recruitment
  - It all starts here
  - You have to find & attract today's firefighter
- Testing
  - Change the model
  - Test for today's firefighter



# Recruitment

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- Increase the size of the applicant pool
- Increase the number of quality candidates in the applicant pool
- Increase diversity of applicant pool through targeted recruitment of minorities and women
- Increase success of selection process by increasing the number of “qualified” applicants

# Comparison of National Demographics

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	National Demographics	Fire Service Applicant Pool
Whites	71%	68%
Blacks	12%	11%
Hispanics	12%	15%
Asians	4%	2%
Native Americans	1%	1%
Males	49%	91%
Females	51%	9%



# Importance of Diversity

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- Increase your talent pool
- Improve leadership
- Build better teams
- Increase innovation
  - Creativity
  - Problem solving
  - Varying viewpoints/ideas
- Represent the community
- Create a better public image
- Create an environment that is comfortable for everyone, including minorities
- Save money
  - Legal costs
  - Innovation



# Common Recruitment Methods

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- Print Advertising
- Referrals
- Conferences and Job Fairs
- Establishing relationships with:
  - Professional Organizations
  - Minority Organizations
  - Colleges and Universities
  - Community Groups



# Internet Recruitment

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- Three main venues:
  - Department websites
  - Job-seeker websites
  - Fire Service websites
- Broader audience
- Candidates can apply online



# National Database

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- Applicants complete standardized written test, physical ability test, and profile
- Profile and test scores kept in central database
- Member departments would have access to database
- Use of industry standardized tests would allow direct comparisons of applicants across the country

# Advantages of National Database

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- Department
  - Access to larger (national) applicant pool
  - Greater access to minority applicants
  - Reduced (shared) costs
  - Standardized nationwide scoring
- Applicant
  - One application for numerous departments
  - Reduced time & costs



# Assessment Cannot Overcome Serious Deficiencies in Recruitment

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# Selection Methods – Traditional vs. Possible

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- Traditional
  - “Hero” image – traditional fire fighting
  - Measure narrow range of skills
  - Cognitive skills emphasized
  - Recruitment not emphasized (whoever shows up)
- Possible
  - Well rounded image – provide lots of services
  - Measure wide range of skills
  - Cognitive, social, emotional, practical skills all emphasized
  - Emphasize recruitment to represent community and attract diversity

# Written Testing

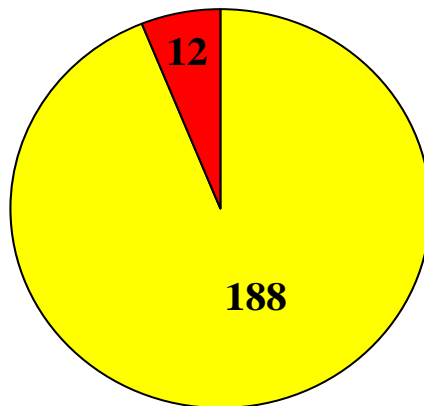
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- The most effective written tests will:
  - Measure more than reading, writing, arithmetic
  - Measure interpersonal, emotional, and practical skills
  - Evaluate situational judgment
  - Be validated statistically (not just content)
  - Have low adverse impact and high validity, without lowering standards

# Written Test Adverse Impact

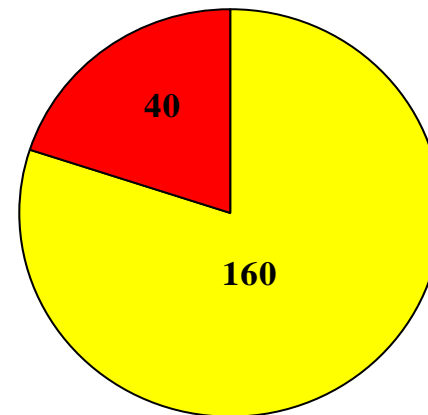
Select Top 200 Applicants Out of 500 Total

Traditional **Cognitive** Model



Adverse Impact

New **Multiple Dimension** Model



No Adverse Impact





# How Can We Reduce Adverse Impact on Written Tests?

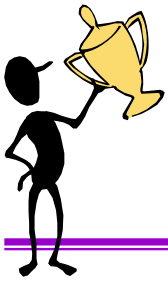
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# Non-Cognitive Components

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- One way to reduce the adverse impact of a written test is to include non-cognitive test components
  - Interpersonal Skills
  - Self-Awareness/Emotional Intelligence
  - Organizational Citizenship Behaviors (OCBs)



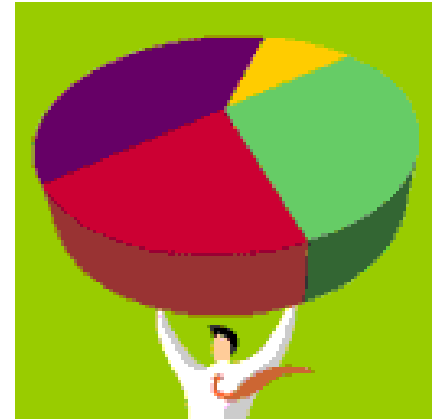
# Advantages of Non-Cognitive Components

- Predicts critical aspects of performance
- Predicts on the job performance better than traditional tests
- Reduces adverse impact
- Also important in group/team performance

# Job Analysis

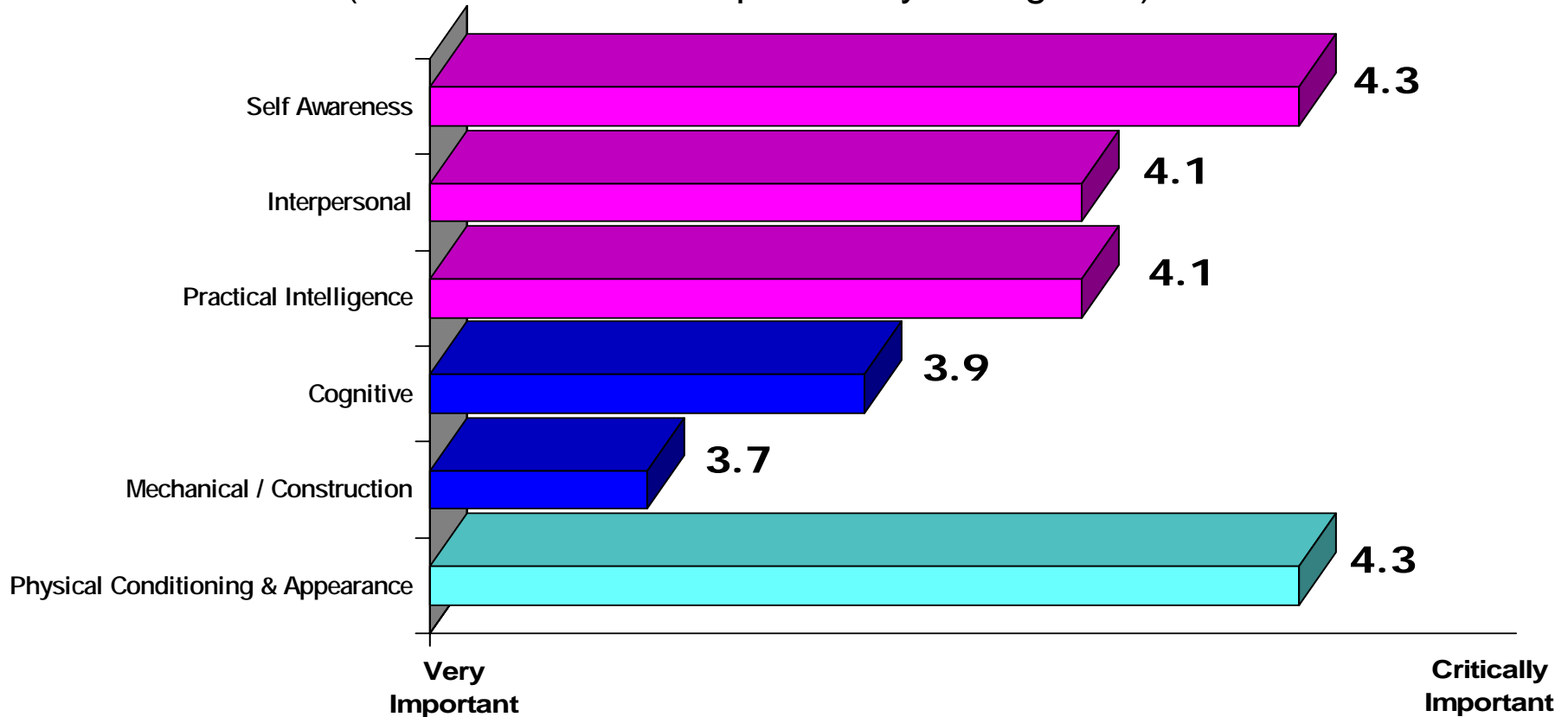
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- Reducing group differences begins with the job analysis.
  - Typical job analysis overemphasizes cognitive ability.
  - Job analysis is so heavily weighted toward cognitive aspects, that non-cognitive aspects get buried.
  - Increase the job analysis domain to capture the full range of KSAs.
  - Focus on non-cognitive elements.



# Job Analysis Support for Non-Cognitive Components

(Skills Rated Most Important by Firefighters)



# Situational Judgment Items

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- Applicant provided with scenarios based on relevant critical incidents
- May be fire department relevant situations
- Not always just one correct answer/solution



# Advantages of Situational Judgment Items

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- Little or no adverse impact
- Predicts breadth of job performance better than traditional tests
- High face validity with candidates

# How is *Selection Solutions* Different?

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# *Selection Solutions*

## Test Components

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### Selection Solutions

- Self Awareness Skills
- Interpersonal Skills
- Practical Skills
- Cognitive Skills

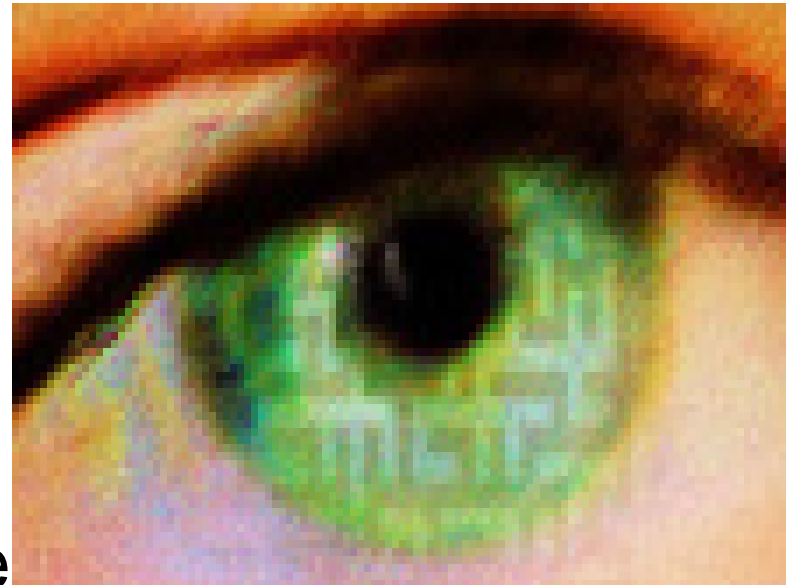
### Traditional Tests

- Cognitive Skills
- Mechanical Ability
- Profile
  - Personality
  - Biodata

# Self Awareness Skills

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- Integrity
- Dependability
- Initiative
- Ethics
- Respect for Authority
- Optimism
- Self Control and Impulse Control



# Interpersonal Skills

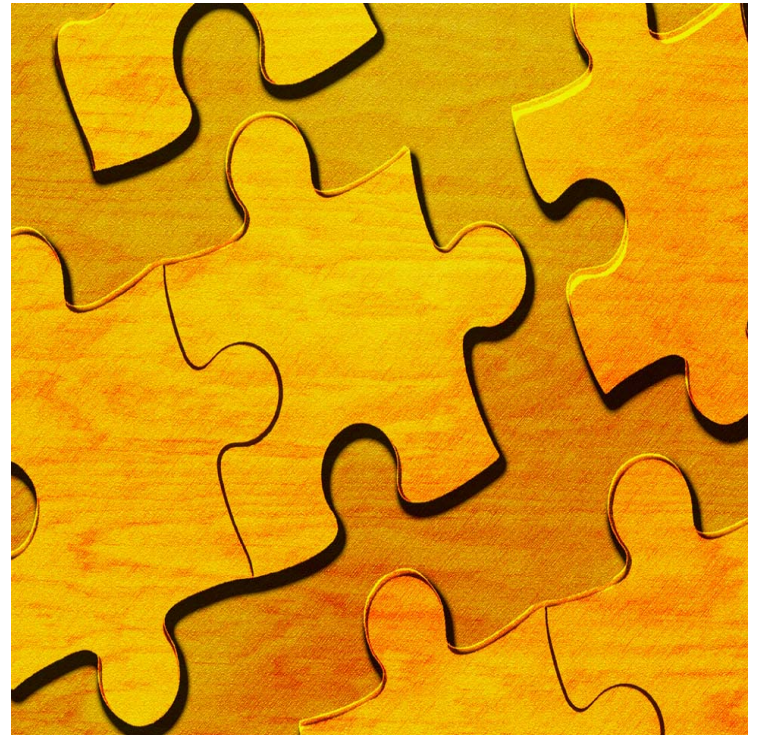
- Work well with coworkers
- Appreciate diverse groups of people
- Service Attitude with the public
- Teamwork
- Flexibility



# Practical Skills

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- Problem Solving
- Judgment and Common Sense
- Accomplish goals
- Think clearly, quickly, & logically in complicated situations



# Cognitive Skills

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- Reading
- Writing
- Mathematics
- Succeed in job training
- Comprehend, learn and retain the information necessary for doing the job.



# *Selection Solutions*

## Test Items

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- Situational & practical based items
- More than one correct answer
- Allows more diversity
- Measures a broader range of KSAs
- Difficult to fake

# What Results Can You Expect with ***Selection Solutions***?

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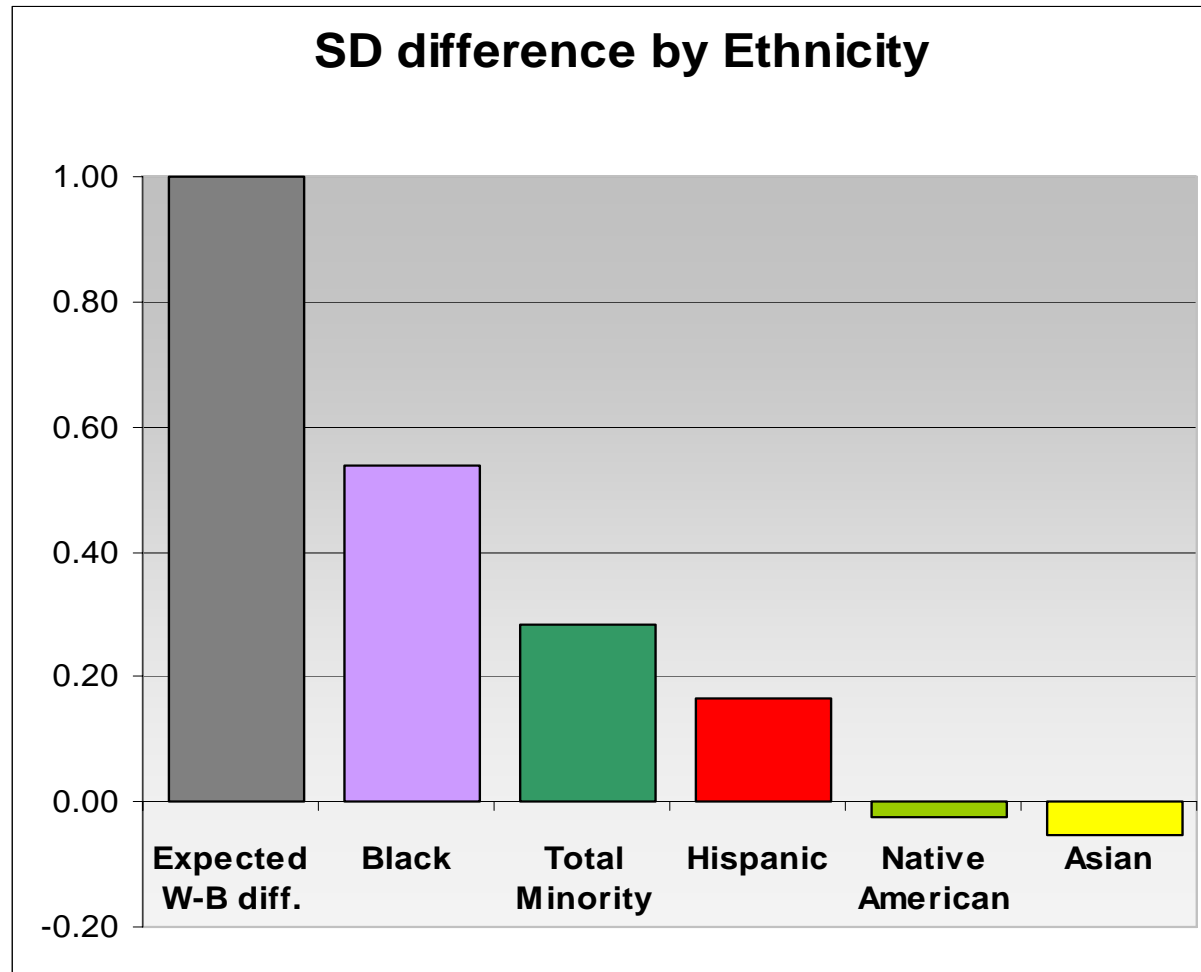
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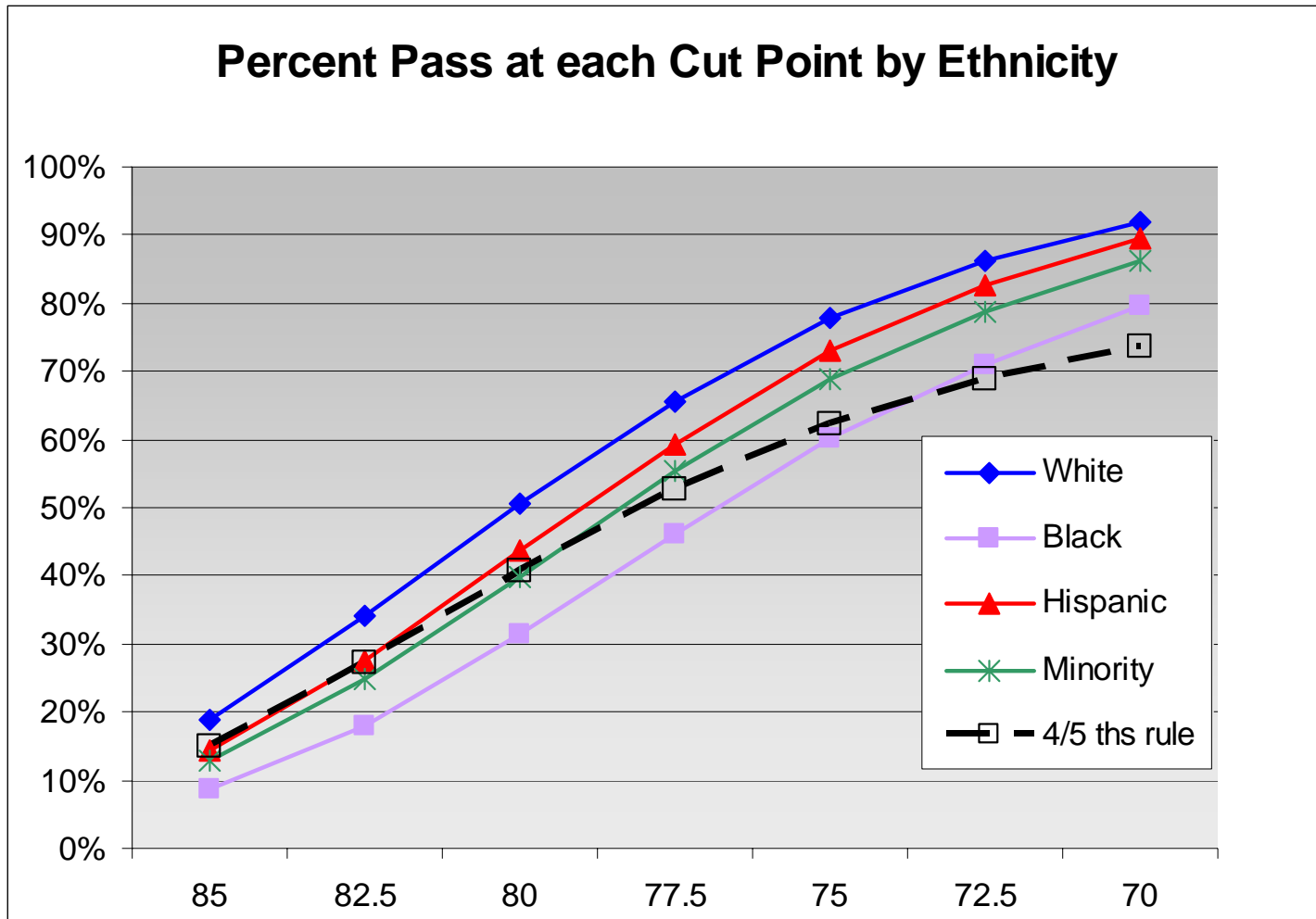
# Selection Solutions

## SD Differences

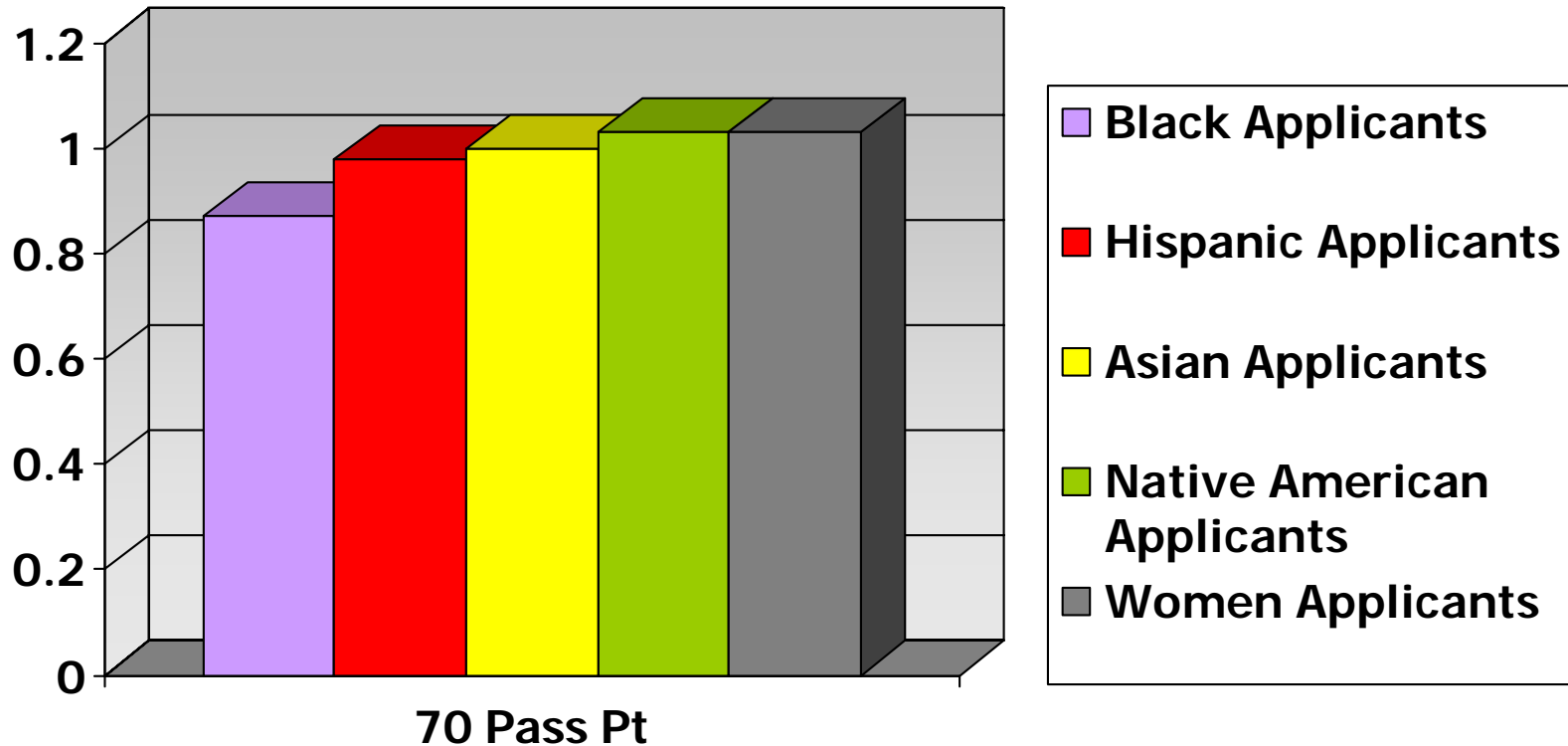




# Selection Solutions Pass Rates



# Adverse Impact Ratios Exceed 4/5ths Rule



Note: Based on over 44,500 First-Time Test Takers

# Adverse Impact Conclusions

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- The *Selection Solutions* test demonstrates significantly less adverse impact than any comparable entry-level firefighter written examination.

# Where Does *Selection Solutions* go from Here?

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# *Selection Solutions Reloaded*

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- CWH is developing a new version of Selection Solutions
- New test will incorporate:
  - New Technology
  - New Testing Innovations

# Initial Research

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- Prototype Test
  - Self Awareness & Emotional Skills
  - Interpersonal Skills
  - Practical Skills
  - Cognitive Skills
  - *Ethics*
  - *Organizational Citizenship Behaviors*

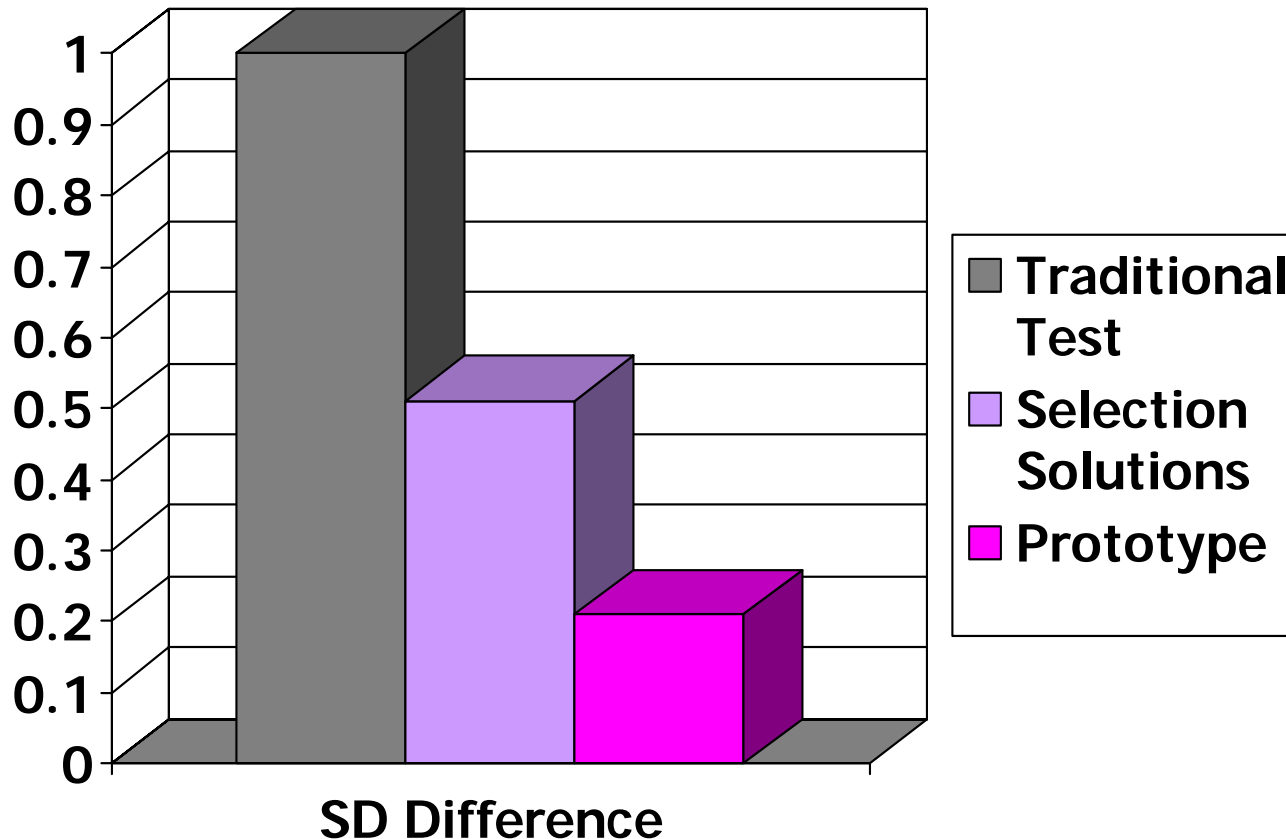
# Validity for Prototype Test

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- Criterion-related validation study
- The validity of the prototype test was even higher than the current test
- Group differences were reduced even further compared to current test

# Prototype Adverse Impact

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# Selection is a Process

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*“There is no permanent solution.”*

– Price Pritchett

- Evaluate your process
- Consider your values, recruitment strategy, diversity issues, testing, and legal issues
- Measure how well your process works
- Consider alternatives
- Do it all again as things change!

# Now for the Marketing & Sales Pitch!

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# Products & Services Offered by CWH Management Solutions

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- Entry-Level Written Tests
- Physical Ability Tests
- Promotional Written Tests
- Assessment Centers
- Structured Oral Interviews
- Job Analyses
- Validation Studies
- Organizational Analysis

# Why You Should Use CWH

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- High Validity
- Low Adverse Impact
- Excellent Client Service
- Expert Consultants
- Cost Competitive
  
- 303-617-3433
- [www.cwhms.com](http://www.cwhms.com)

