



The Next Generation in Firefighter Selection: A New Model for a New Generation

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History of Public Safety Selection



Whoever is Available - Historical



Who you know - Patronage



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



The Smartest – 1960's (IQ / Cognitive Testing)



The Right Profile – 1980's (Personality Testing)



Diverse Well Rounded Leaders – Today (MQ Testing)



Next Generation Firefighter

- 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





Hiring the Next Generation Firefighter



Selecting the Next Generation of Firefighters

- Recruitment
 - It all starts here
 - You have to find & attract the next generation firefighter
- Testing
 - Change the model
 - Test for the next generation firefighter





Goal of Recruitment

- 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

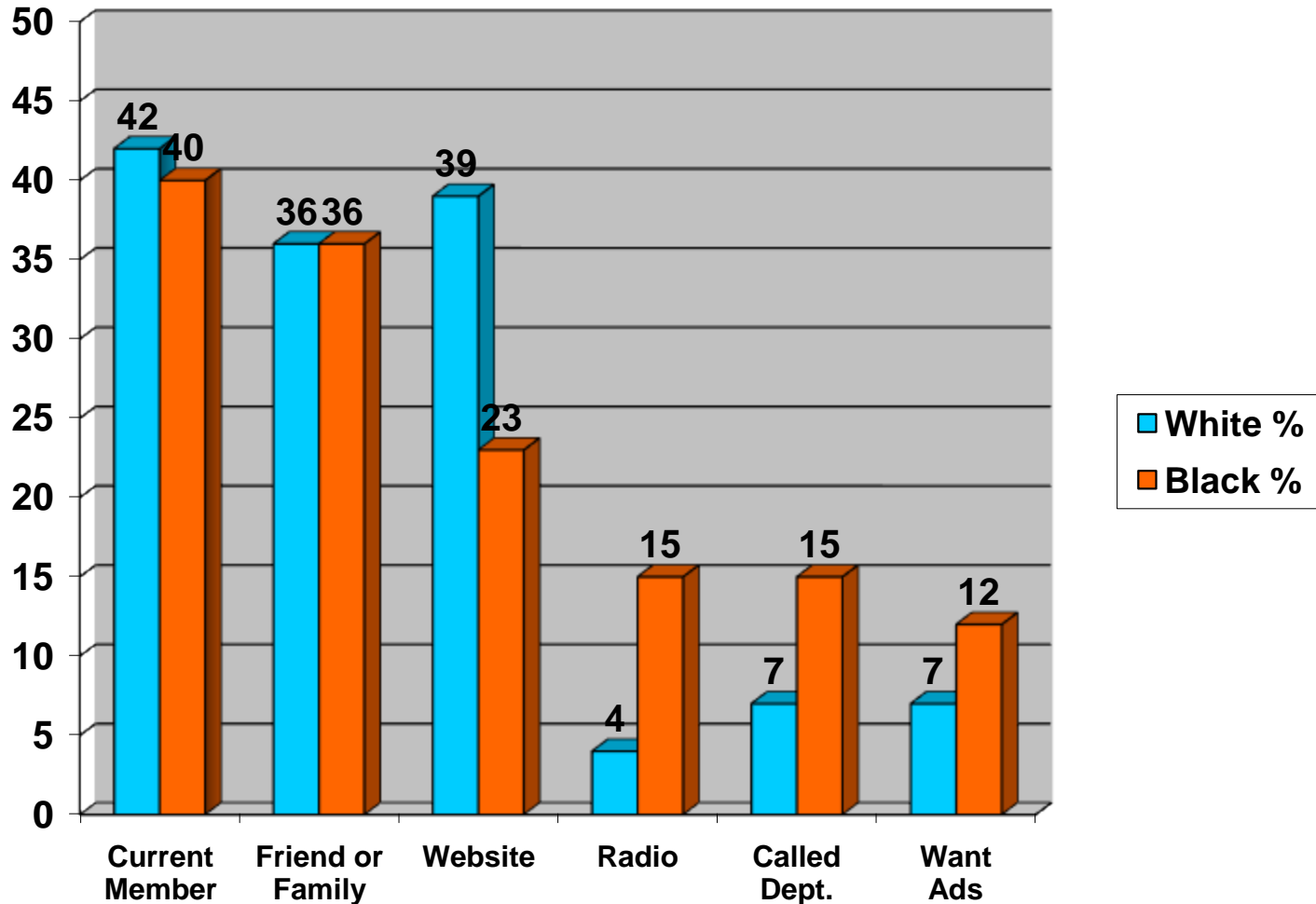


Recruitment & Hiring Barriers

- Not knowing where to recruit.
- Failing to advertise widely.
- Recruitment practices that overlook or fail to seek all qualified individuals.
- Reliance on informal networks of recruitment or word-of-mouth.
- No formal systems for recruitment.
- Limited pool of targeted groups of persons with required qualifications.
- Unsupportive work environment
- Counterproductive behavior and harassment in the workplace.



Learning About FF Job Openings Ethnic Comparison





Importance of Diversity

- 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



Even the Best Assessment Cannot Overcome Serious Deficiencies in Recruitment!



Entry Level Selection Methods

Traditional vs. Progressive

Traditional

Recruitment not emphasized – done by referring people we know

Written “IQ” type test, Oral Boards, Physical Ability as multiple hurdles

Measure narrow range of skills in each hurdle

“School” knowledge tested – what you know & test taking ability

Goal to hire individuals with the same strengths considered most important

Progressive

Target recruitment to represent community and attract diversity

Use more of a compensatory model – multiple strengths may outweigh some weaknesses

Measure more of the WHOLE PERSON by assessing a wider range of skills at each step

“Life” knowledge & experience tested – what you can do with what you know

Goal to hire individuals with complimentary strengths for a strong whole



Written Testing

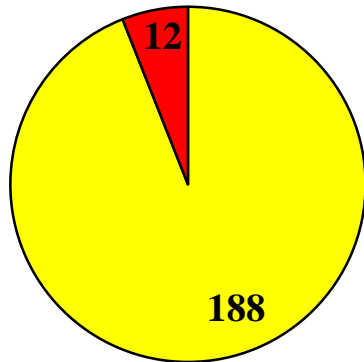
- The most effective written tests will:
 - Measure more than reading, writing, arithmetic
 - Measure interpersonal, emotional, and practical skills
 - Evaluate situational judgment
 - Be validated statistically (not just content)
 - Have low adverse impact and high validity, without lowering standards



Written Test Adverse Impact

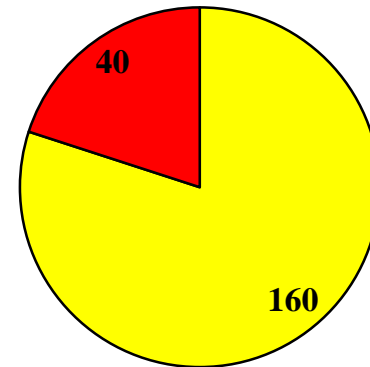
Select Top 200 Applicants Out of 500 Total

Whites
Traditional **Cognitive** Model

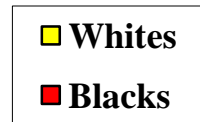


Adverse Impact

East
New **Multiple Dimension** Model



No Adverse Impact

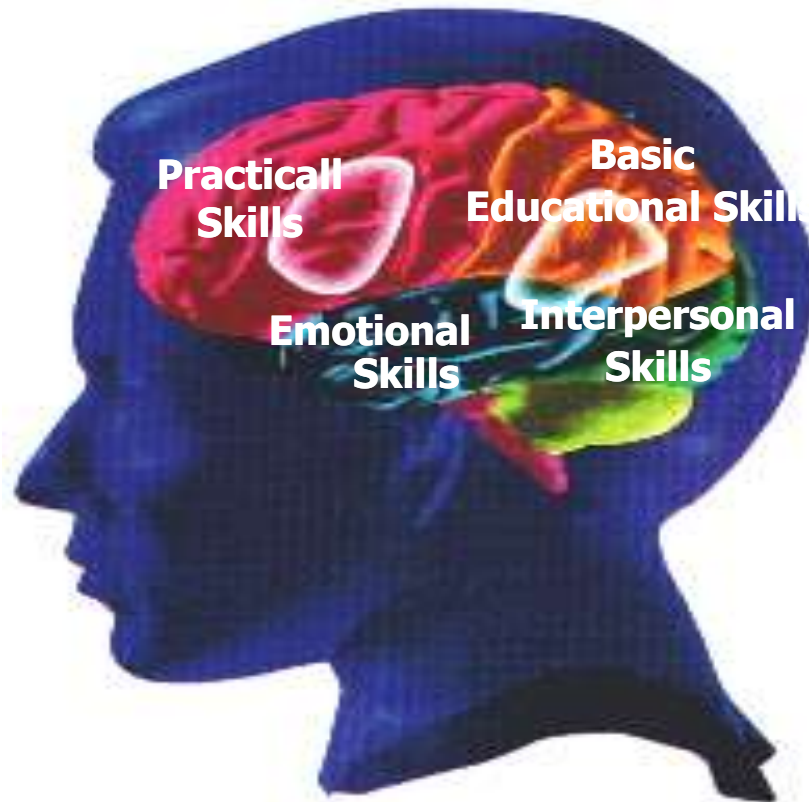




Written Testing for the Next Generation



Measuring Multiple Dimensions





Advantages Multiple Dimensions

- Predicts more of the critical aspects of performance
- Predicts job performance better than traditional tests
- Reduces adverse impact if designed properly
- Important in group/team performance

Job Analysis

- Reducing group differences begins with the job analysis.
 - Typical job analysis overemphasizes educational skills (traditional cognitive ability).
 - Job analysis is so heavily weighted toward traditional cognitive aspects, that multiple dimensions get buried.
 - Increase the job analysis domain to capture the full range of KSAs.
 - Focus on non-traditional elements that the next generation firefighter needs to be successful.





Demographics of Participating Departments for Job Analysis

	Department						Total	
	1	2	3	4	5	6	N	%
Whites	644	766	585	399	263	190	2847	72.4
Blacks	54	145	45	234	102	25	605	15.4
Hispanics	198	54	125	12	1	0	390	9.9
Asians	9	22	10	8	4	0	53	1.3
Nat Amer	14	16	0	1	1	1	33	0.8
Men	882	904	732	550	342	215	3625	92.2
Women	37	99	33	105	30	1	305	7.8
Total	919	1,003	765	655	372	216	3930	

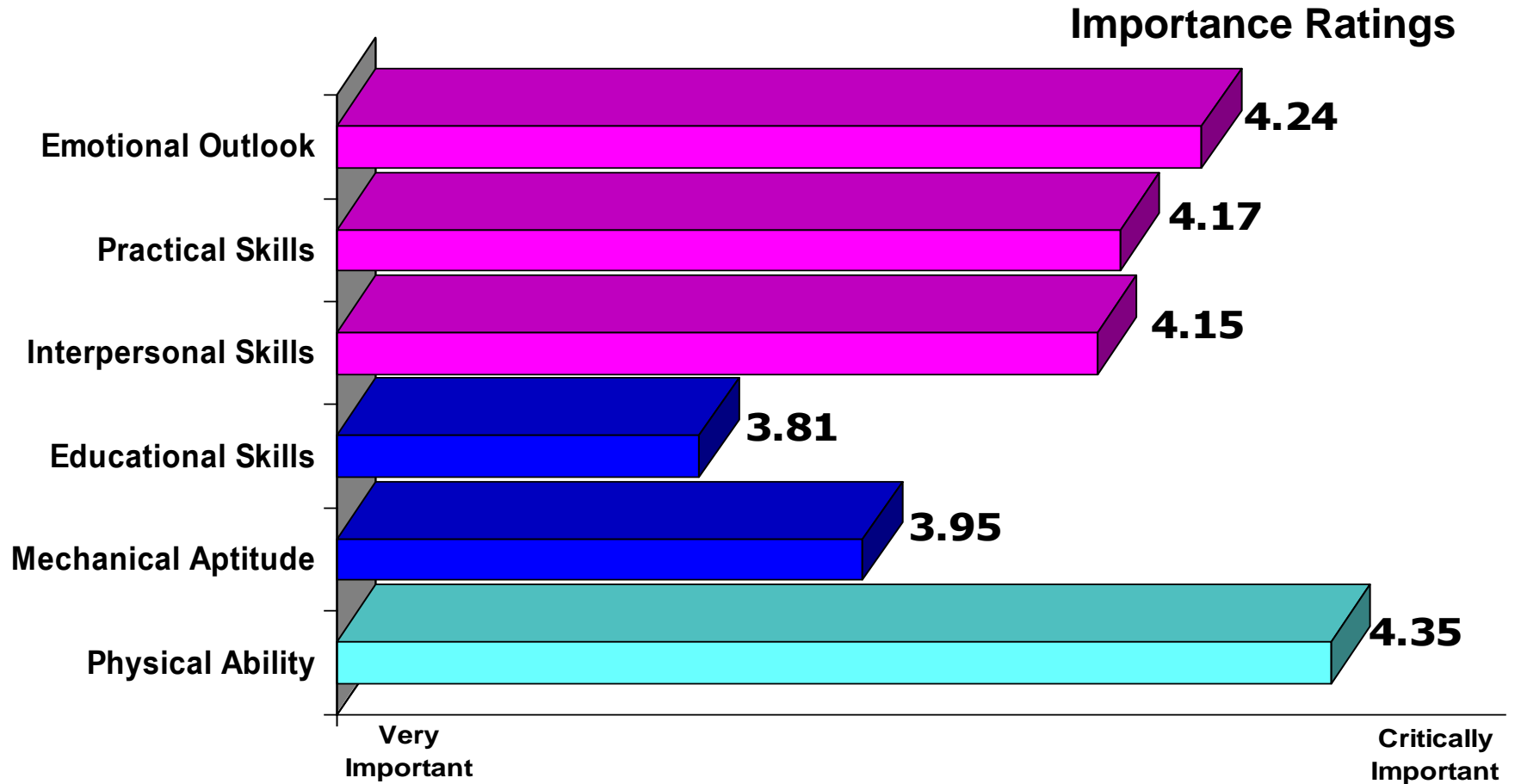


Demographics of Job Analysis Participants

	Total	
	Total	%
Whites	535	57%
Blacks	131	14%
Hispanics	117	13%
Asians	10	1%
Native Americans	14	1%
Other or Missing	128	14%
Men	826	88%
Women	92	10%
Missing	17	2%
Total	935	



Job Analysis Support for Measuring Multiple Dimensions





Test Components and Dimensions in the *Next Generation* Test

Interpersonal Skills

- Ability to Get Along with Others
- Teamwork
- Compassion
- Acceptance of Diversity
- Customer Service



Emotional Outlook

- Handling Difficult Situations
- Effectiveness Under Stress
- Ethics, Integrity, & Honesty
- Work Ethic
- Self-Control
- Personal Responsibility
- Respect for Authority



Practical Skills

- Decision Making & Decisiveness
- Judgment, Reasoning, & Common Sense
- Problem Identification & Analysis
- Safety Awareness





Basic Educational Skills

- Reading Comprehension
- Writing Skills/Grammar
- Mathematical Ability



Mechanical Aptitude

- Use of Leverage & Force
- Workings of Gears & Pulleys
- Reading Gauges





Validity of the *Next Generation Test*



Incumbent Test Taker Sample

	Total	
	Total	%
Whites	173	59%
Blacks	51	17%
Hispanics	60	20%
Asians	4	1%
Native Americans	5	2%
Men	253	86%
Women	42	14%
Total	295	



Criterion Validity

Interpersonal Skills	.35**
Emotional Outlook	.33**
Educational Skills	.26**
Practical Skills	.25**
Total Test	.39**

Significant at the 0.01 level; N= 295



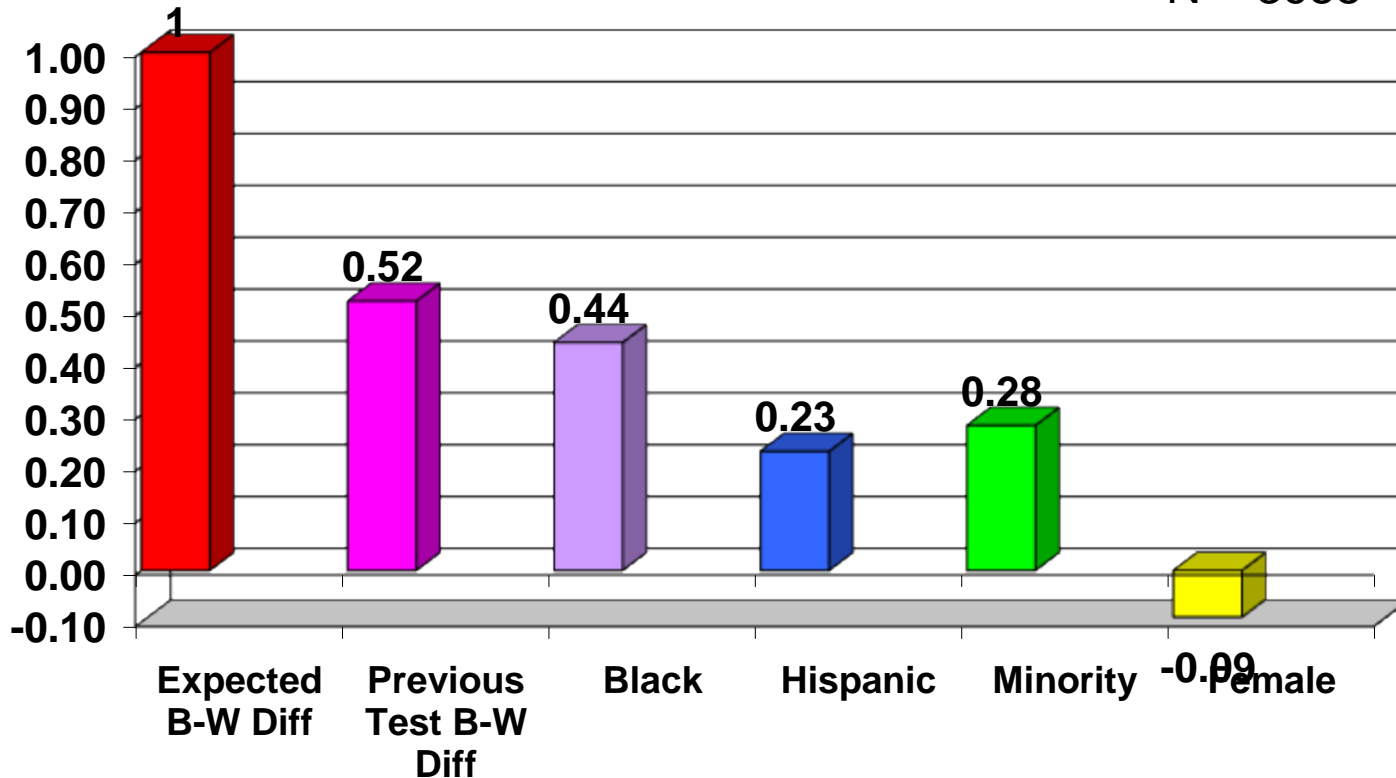
Adverse Impact of the *Next Generation Test*



Adverse Impact: SD Differences

Applicant Data

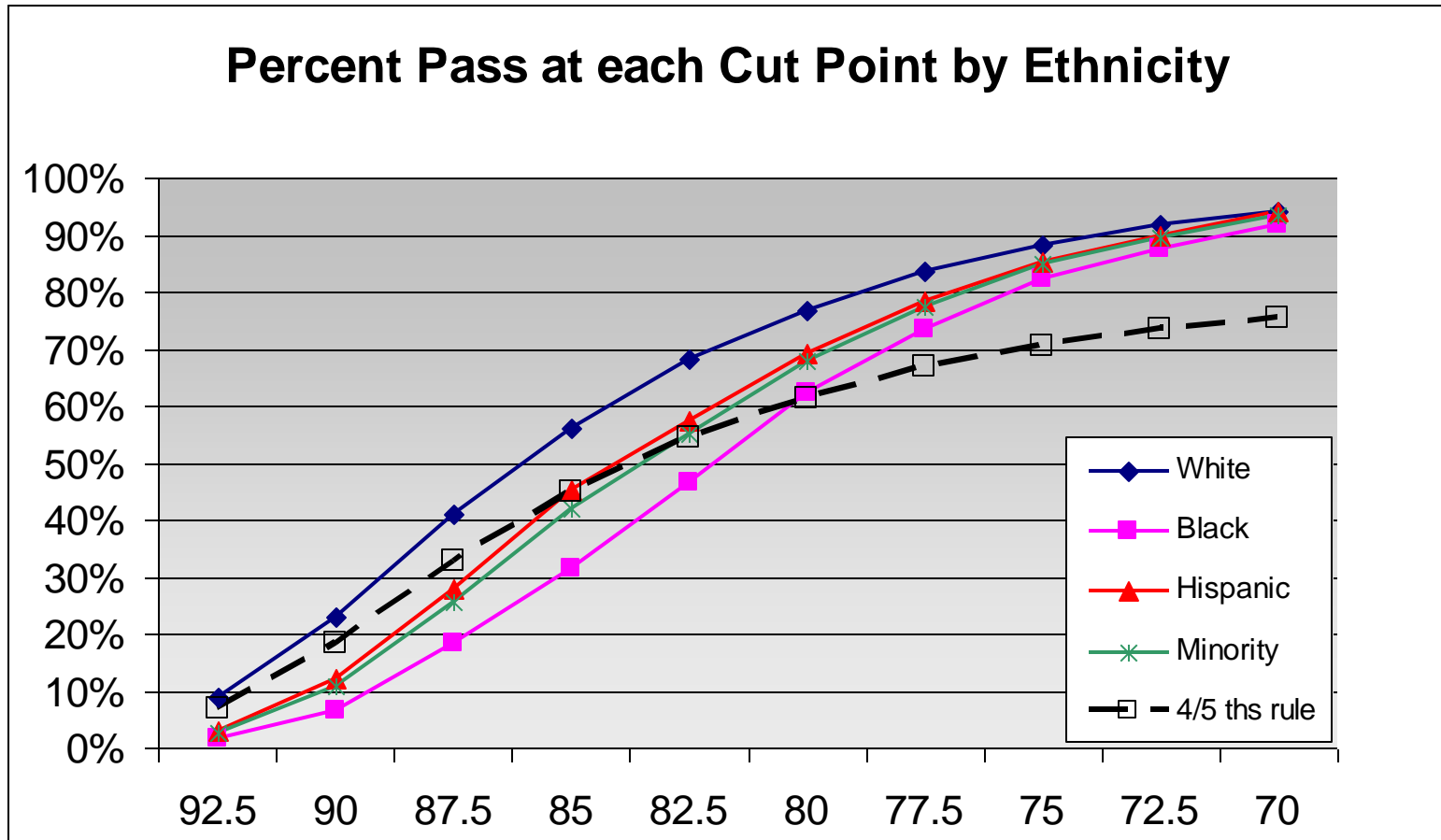
N = 3955





Adverse Impact: Pass Rates

Applicant Data



N = 3955

32



Conclusions

- The *Next Generation* test demonstrates validity that is equal to or higher than any comparable entry-level firefighter written examination.
- The *Next Generation* test demonstrates less adverse impact than any comparable entry-level firefighter written examination.
- The *Next Generation* is one example of what can be accomplished by using selection measures that tap into multiple dimensions to better evaluate the whole person.



Selection is a Process

“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!



References & Additional Reading

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