Psychological Assessment in the Selection of Personnel for specialized roles in Government: Where does it fit in? What role might it play?

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Outline

- Differing approaches to assessment and selection
- Specific assessment methods
- General recommendations for an assessment program
- Role psychology can play in assessment and selection programs

Observation

- *Assessment and selection activities are the most important step in building and maintaining any kind of specialized organization or unit.*
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- *Unfortunately, this fact is soon lost on units/organizations or taken for granted, such that in the end, the identity, the very essence of what makes that unit unique is left in the hands of junior or mid-career persons who have no experience in selection.*

Assessment and Selection Goals

- For special military units:
  - Ready to go:
    - prediction of immediate job success
    - Knowledge, skills, & abilities
  - Ready to train:
    - prediction of success in training
    - Pre-requisite knowledge and abilities along with desired aptitude or attributes
- For NIH special programs:
  - It is likely to be a mix of both elements due to heterogeneity of persons with access to labs.

Step One in Selection: The job analysis

- Thorough assessment of the skills, knowledge, and abilities required for success on the job
- Critical task selection/review board
- Job observations
  - Common task analysis.
  - Critical incident analysis (i.e. of the events one would like to prevent)

Selecting for known vs. unknown tasks demands : Skill vs. Attribute

- Specific skill sets identified as necessary for the job vs. general personality characteristics identified as related to increased job success [*or vulnerability*]

- Relates to whether the job entails almost entirely known tasks vs. jobs that require more flexible, creative responses and frustration tolerance.
    - Skill – specific scientific task qualification
    - Attribute – stress tolerance

Rule out vs. Rule in

- "Rule out" is easier
  - Range of normality is huge, abnormality is small
  - Usually looking for reliability/integrity issues and specific judgment/behavior problems in history (substance abuse problems, financial problems, psychiatric history, legal problems, marital/family issues, etc.)

- Rule in criteria – based on identified skills, knowledge, and abilities or attributes related to job success

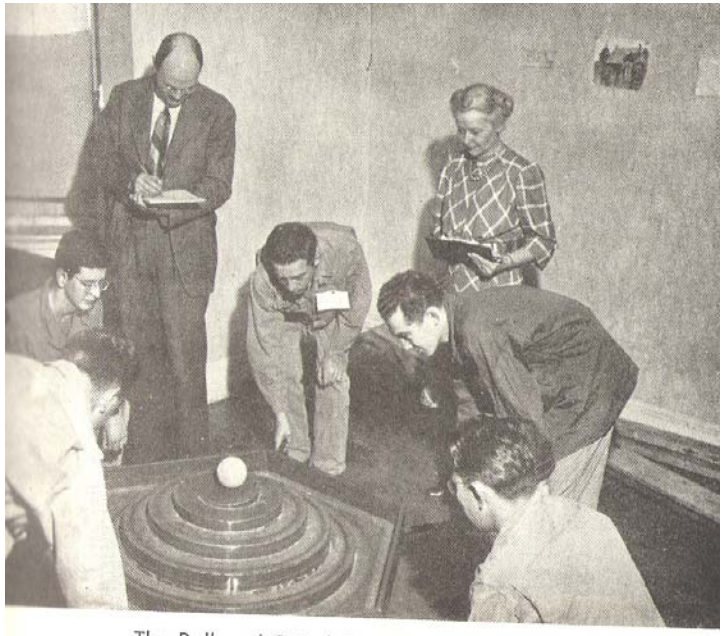
Trainable capacities vs. Fixed qualities

- Many military programs make the mistake of selecting primarily on the basis of trainable skills (e.g., physical fitness)
  - Consequently, these programs frequently eliminate many candidates with attributes that are highly desired (e.g. intelligence)
  - Long term predictors of performance in programs with strong training programs are character vs. skill related
- Many Science programs make the same mistake of selecting primarily on trained skills (e.g. where the scientist trained and what he/she has published)
  - Consequently, these programs frequently discover they have accepted professionals with attributes that are undesireable (e.g. personality disorders or anti-social behaviors)

Earliest model of selection for intelligence personnel

- OSS selection
- Assessment Centers
- Continuous observation, testing, multiple dilemmas
- Mixed results

The Construction Situation



The Ball and Spiral Situation at W

Multi-factor approach

- “Whole man” approach
- Are all attributes or domains equal?
- Are there critical requirements that are go/no go for job selection?
- Differentiating between got to have, want to have, and wish to have

Special Assessment and Selection

- The multiple attribute theory-briefs well to Congress…
- An alternative reality- the “better protoplasm” model
  - Physically fit enough*
  - Tough enough-re: stress tolerance/hardiness
  - Smart enough
  - Motivated enough to persevere despite significant negative conditions (fatigue, discomfort, uncertainty)
  - Plays well with others

Pragmatics of Selection

- Must first assess realities of situation
  - How narrow of a funnel can you stand (applicant/selectee ratio)
  - What level of attrition has to be routinely replaced?
  - Are you growing unit or maintaining current strength?
  - How much time/money is there to spend on assessment and selection?
  - What are the costs of getting it wrong?
  - Is Assessment and Selection a one stage issue or is it part of a longer, ongoing process extending through subsequent training?
  - What are program goals vs. rock bottom requirements?

Assessment methods

- Pre-requisite screening
- Performance rankings/ratings
  - Job samples
  - Analogous tasks
  - Individual vs. group tasks
  - Cadre observations/ratings
- Peer evaluations
- Dilemmas/in basket exercises/field problems
- Psychological testing
  - Intellectual
  - Personality
- Psych Interviews
  - May include component relevant to Security Risk
- Selection board

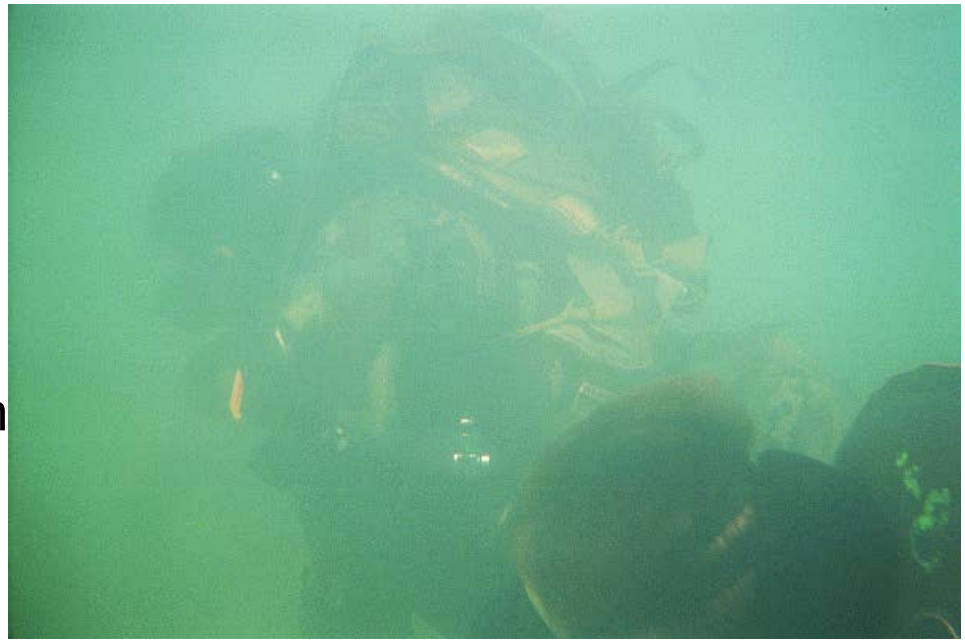
- *<u>Not recommended</u>: recommendation letters, branch recommendations - unless you are willing to talk to them at length.*

Pre-requisite screening

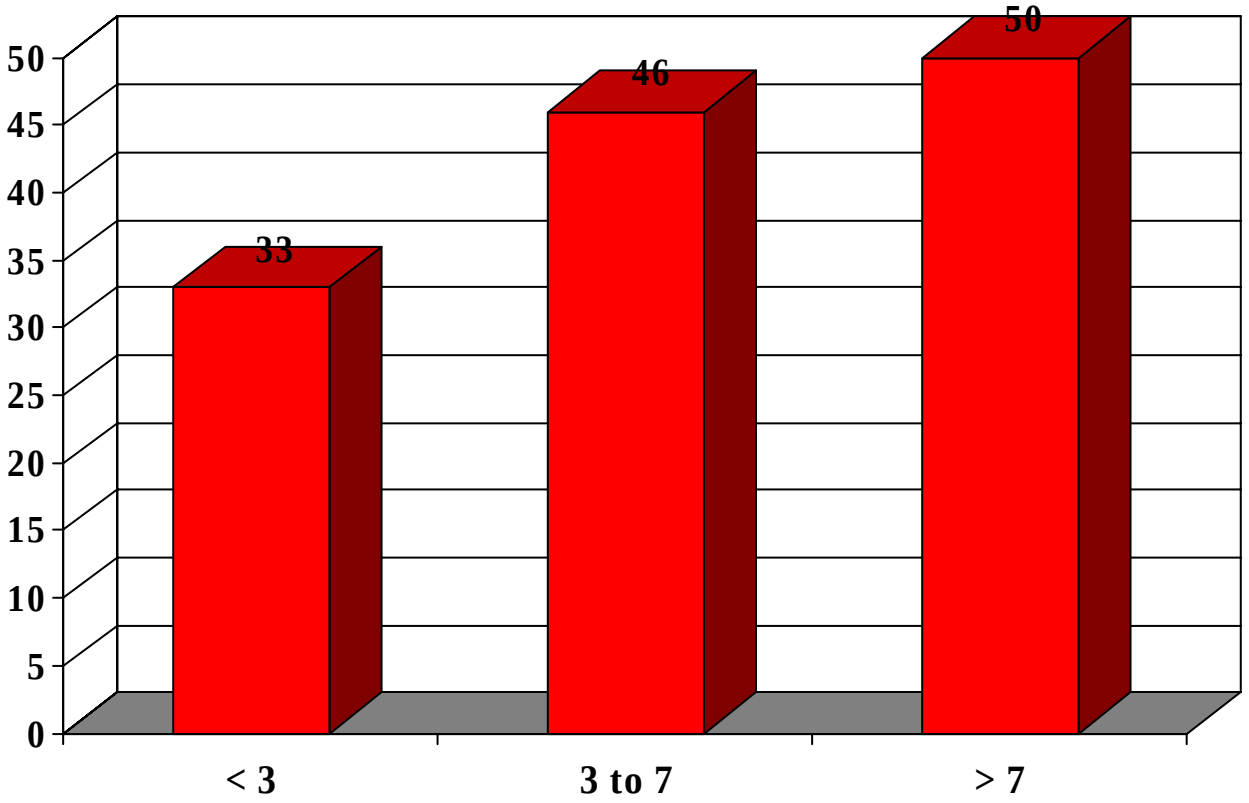
- Allow you to limit pool of candidates at start to those who possess some minimum set of requirements known or thought to be related to performance success.
- Demographics (e.g. age, rank, time in service, branch, specialty training)
- Indicators of likely level of intellectual functioning (e.g., ASVAB scores, level of education)
- NIH programs may give more weight to other variables in the screening process.

Performance measures in Selection

- Job samples (tasks identical to actual performance requirements, e.g., rucks, land navigation performance)
- Analogous tasks (tasks similar in some critical manner to job tasks-expedient, e.g., leadership reaction course)
- Individual vs. group tasks
- Cadre observations



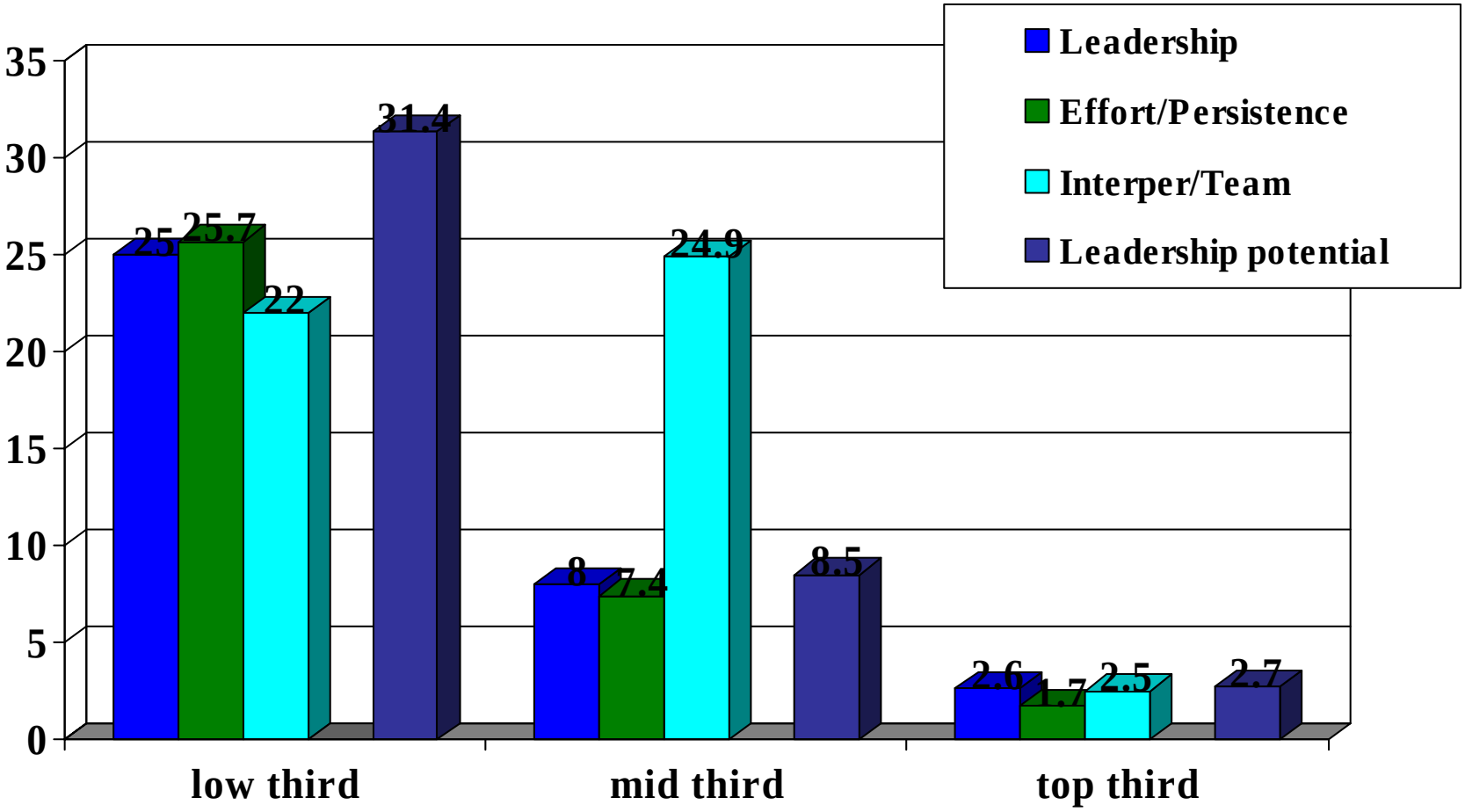
Percentage Pass rate in SFAS by Pull- up score



Peer Evaluations

- Spot light effect – you can't fool all the people all the time.
- One of the best indicators of future functioning in team environment
- Have to be obtained in context of time spent in which candidate performance within the team is interdependent

Peer rankings and SFAS Non-select rate (board activity)



Dilemmas

- In basket exercises- can give you some idea of how a candidate reasons through problems
- Field challenges-
- Dilemmas-novel problem solving opportunities
- Scenario based exercises

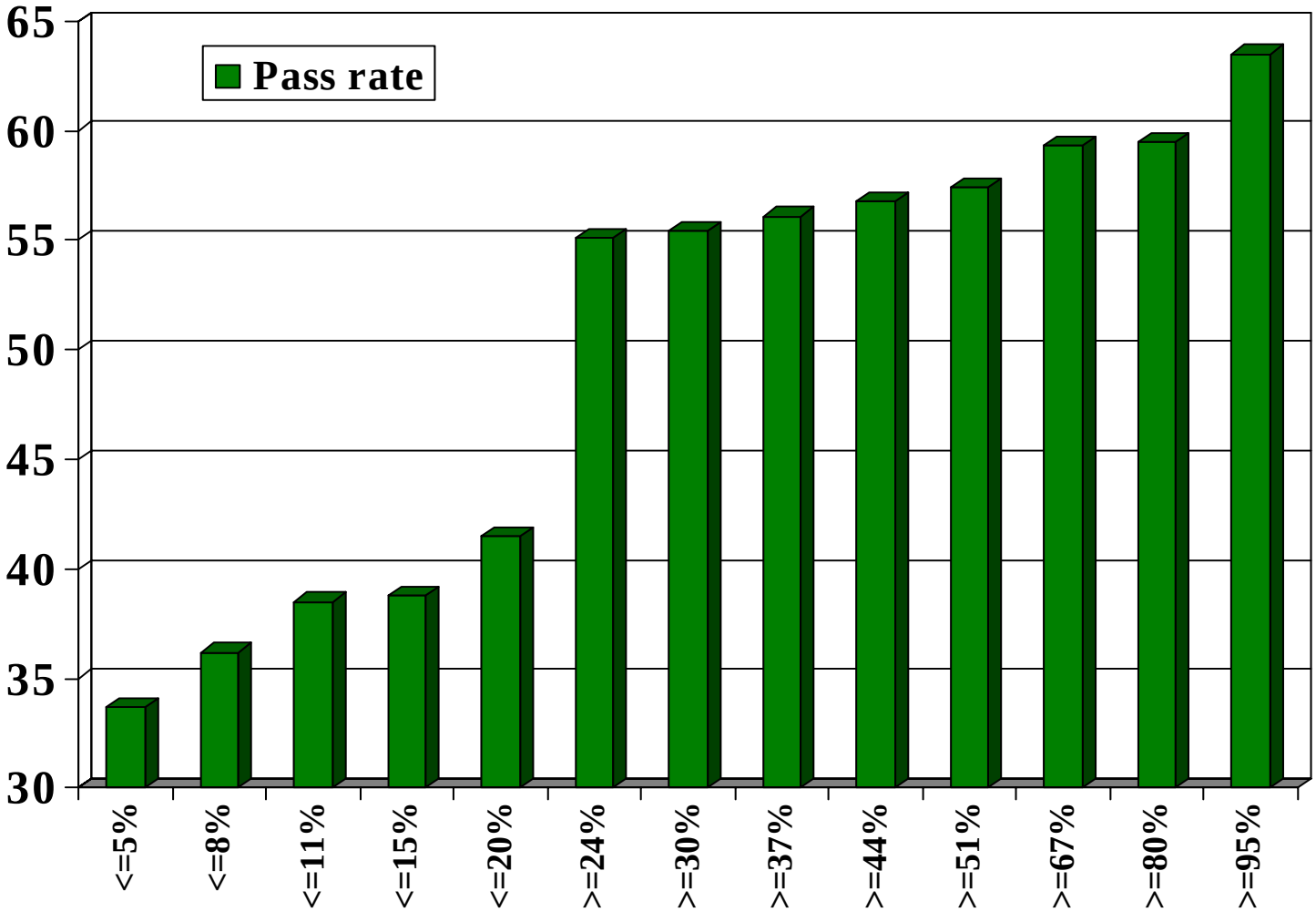
Psychological testing at Assessment and Selection

- Generally divides into:
  - Intellectual/cognitive testing
    - Estimators of IQ
    - Achievement tests
  - Personality testing
    - Psychological vulnerability (first factor)
    - Social orientation
    - Openness/flexibility (adaptability)
    - Other risk indicators

Intellectual assessment

- Quick screens generally sufficient – just don't want short school bus riders, really hoping for above average to superior range.
- Above average guys make up for it if they have high self-discipline, perseverance, good self-assessment, and good social skills.
  - Wonderlic
  - *Shipley Institute of Living Scale*
  - *GAMA*
  - *ASVAB (GT and FA) Wonderlic type items or scales. Link to job requirements, report reading and writing, commo skills,*
- Board Questioning- behavioral interviewing: adaptability/flexibility, creative problem solving

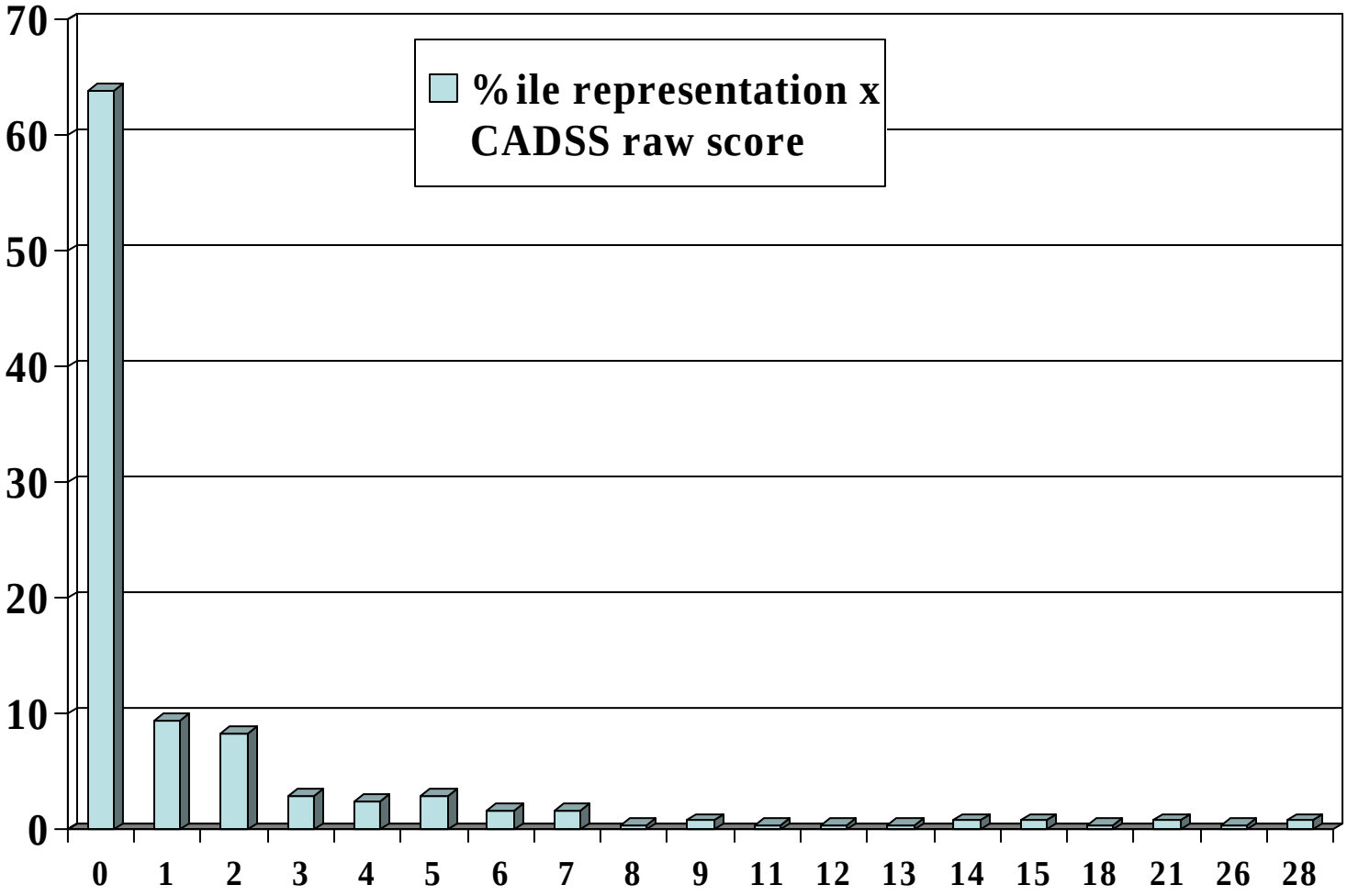
SFAS Pass rate by Wonderlic percentile score



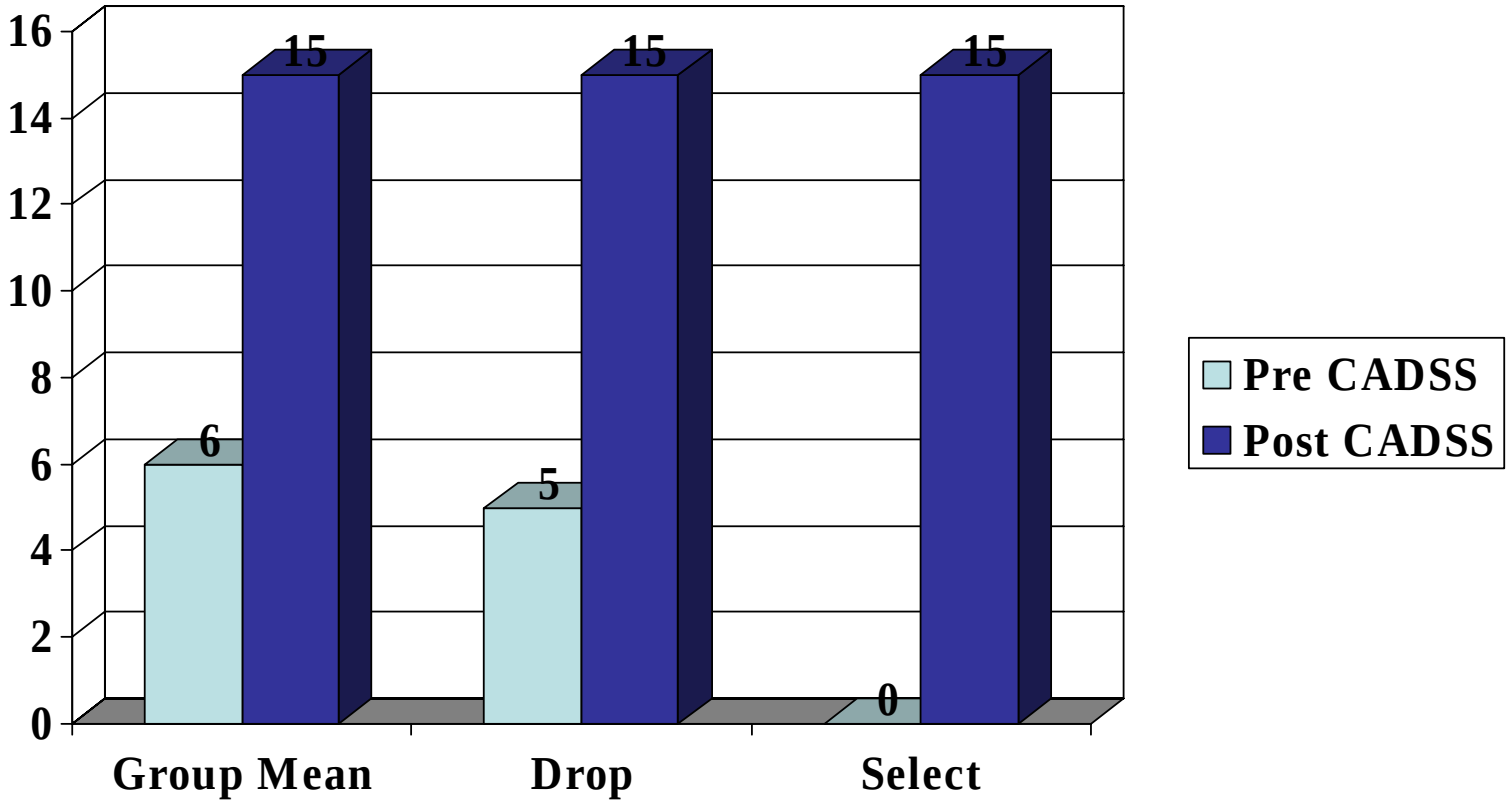
Personality/Psychological vulnerability

- Standardized screens in conjunction with interview
  - Idea of clinical vs. normal personality tests
  - Use of multiple tests – wear effect
    - MMPI-2 or more recent variants
    - NEO-PI-R
    - CADSS
    - TAIS – decision making style
    - *NIH programs might want other instruments.
- History of high risk behaviors
  - Polygraph form
  - Background checks (legal and financial, personnel records review)

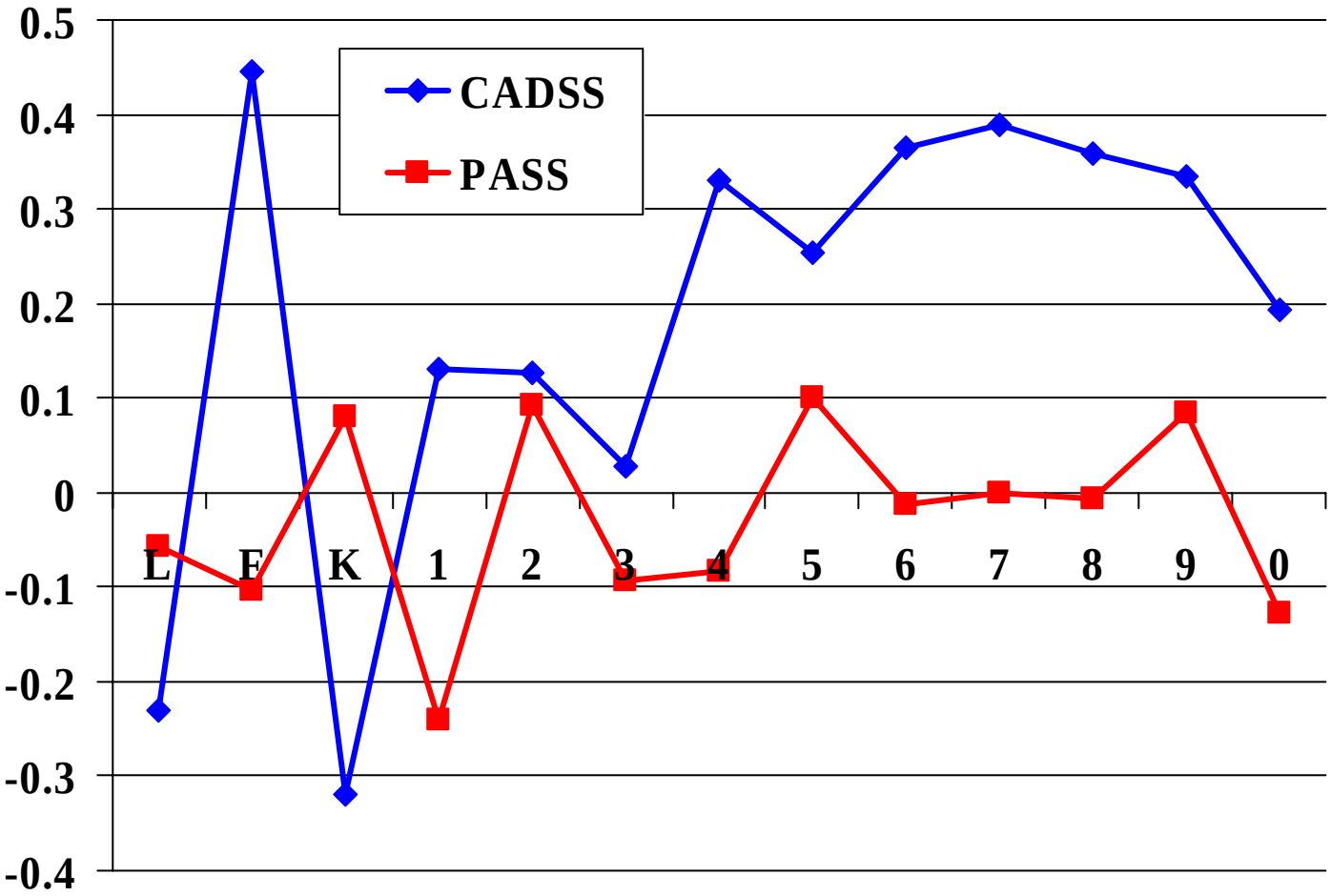
CADSS Normative Data - SFAS



Relationship between Dissociation and Success in Selection (SFAS)



Relationship of CADSS raw scores to other testing variables



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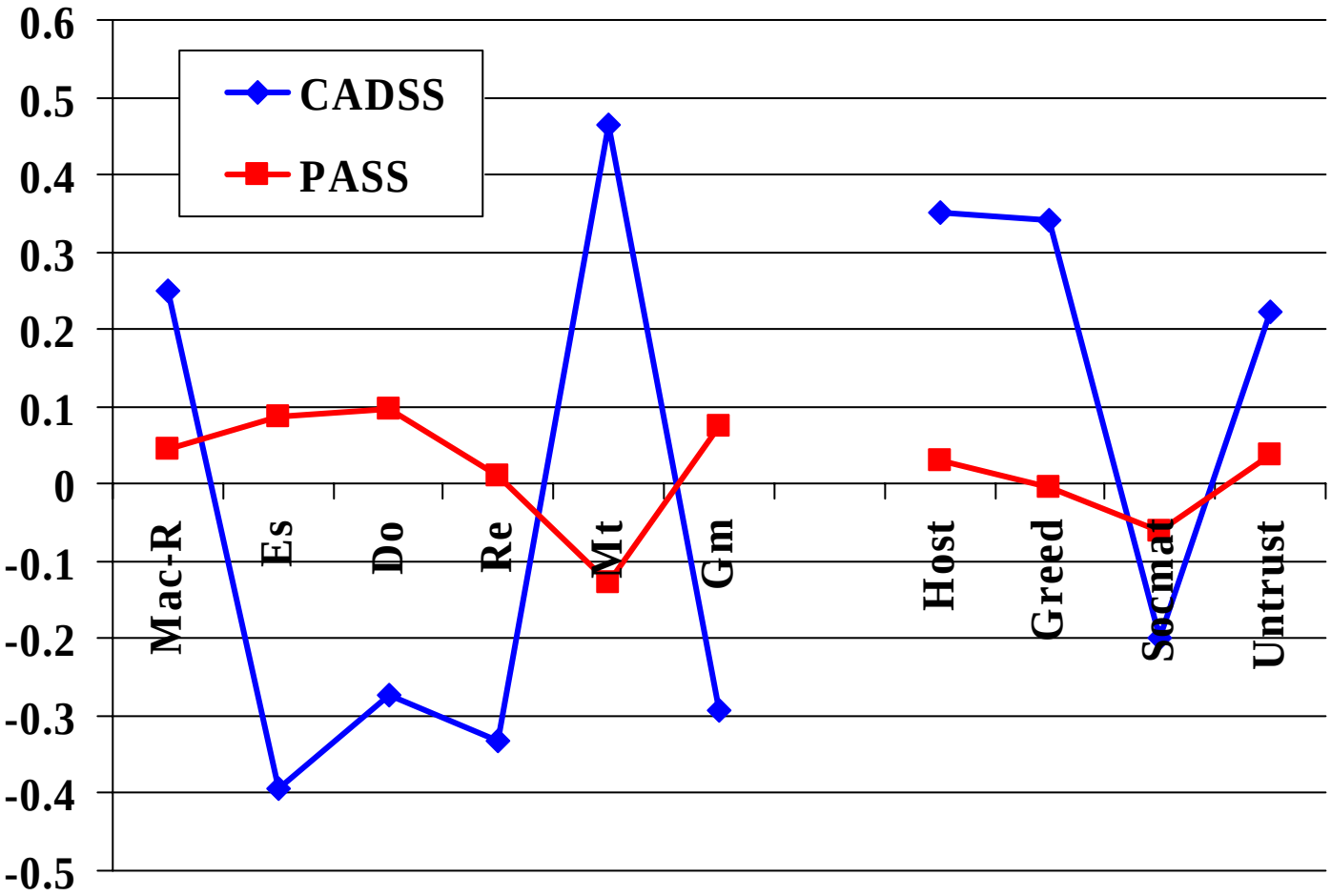

Risk Rating and Psych Testing

- **Ratings are assigned to subject based upon their MMPI profile and their Wonderlic raw score**
- **A Hi risk rating (Psych) denotes a rare pattern of responses to the psych tests among successful candidates and may include individuals who also have low Wonderlic scores**
- **A Hi risk rating (IQ) denotes a Wonderlic score in the 10th percentile or less for all program candidates in the absence of a Hi risk rating in the psych (MMPI) testing**
- **A Moderate risk rating denotes a profile of test responses that is considered to be different from the majority of successful candidates, but not severely so.**
- **A Lo risk rating comprises all those of reasonable intelligence with no risk factors indicated on selected variables from psych testing**

Interviews

- Generally experience suggests that algorithm works better predictively than algorithm plus interview
- Interview necessary to provide data for board determination
- Catches the few smart but dangerous guys who take more sophisticated approach to testing

Boards

- Is a tool in and of itself.
- Few organizations monitor board activity for subsequent validation and improvement (AWG, 160th SOAR, CAG)
- Few organizations engage in board training
- Differing approaches (confrontational, task focused, non-confrontational (mostly))
  - *Do not recommend confrontational board approach*
  - *Do recommend a board approach that focuses on specific behaviors.*

Core recommendations for an assessment program for selecting science professionals working special programs

- Rule in criteria
  - Physical enough*
  - Motivated enough and motivated correctly
  - Smart enough
  - Tough enough
  - Good social skills
- Rule out criteria
  - Personality disorder/mental instability
  - Integrity problems (absence of honesty, critical core values)
  - Judgment problems (behavioral indicators of problems reflected in legal, financial, substance related, interpersonal, occupational, etc. domains)

What part can behavioral science types play in conducting a valid, high efficiency assessment and selection program?

- In the assessment phase
  - Intellectual/cognitive capacities
  - Some aspects of social skills
  - Most of the rule out critieria
- Program assessment
  - Development of databases, metrics for training and field performance
  - Ongoing individual and peer assessment
  - Data analysis

Summary

- **A variety of methods exist for pre-screening professionals prior to selection: multidimensional approaches are best**
- **Data from other programs suggests possibility of a rule-out process whereby scientists with very poor likelihood of 'fit' could be screened out**
- **Military Program Findings reflect the prevailing philosophy/values of current system (hard over smart); They do, however illustrate the principles of selection.**

- ***There is almost no performance or personality measure that does not discriminate between successful and unsuccessful candidate groups***

Validation

- Invariably the missing piece
- Selection assessment database
- Training program performance data
- Field performance data
- A methodology for routine feedback loop about selection and training
- Actual validation – capacity to justify practices and procedures (a greater challenge if targeting issues with low base rates).

Questions?