This paper presents the view that both individual differences-oriented personnel selection researchers and situationally-oriented organizational behaviorists can profit from an examination of each other's theories and findings. Specifically, it is argued that (1) personnel selection researchers will achieve increased levels of predictive validity when situational effects on ability-performance relationships are considered, and (2) organizational behaviorists will better understand why organizational conditions can lead to increased average levels of production and satisfaction when they acknowledge the importance of individual differences in ability. Research evidence of both an empirical and logical nature is presented to support the integration.

(Author/WL)
PERSONNEL SELECTION AND ORGANIZATIONAL BEHAVIOR: AN INTEGRATED VIEW

BENJAMIN SCHNEIDER

Research Report No. 14

September, 1976

psychology
Personnel Selection and Organizational Behavior: An Integrated View

Benjamin Schneider

Department of Psychology
University of Maryland
College Park, Maryland 20742

Personnel and Training Research Programs
Office of Naval Research (Code 458)
Arlington, Virginia 22217

Dec. 1976

This paper presents the view that both more individual differences-oriented personnel selection researchers and more situationally-oriented organizational behaviorists can profit from an examination of each other’s theories and findings. Specifically, it is argued that: (1) Personnel selection researchers will achieve increased levels of predictive validity when situational effects on ability-performance relationships are considered; and,
2) Organizational behaviorists will better understand why organizational conditions can lead to increased average levels of production and satisfaction when they acknowledge the importance of individual differences in ability. Research evidence of both an empirical and logical nature is presented to support the integration.
The major issue in personnel selection research is the accuracy of predictions made possible by the procedures used as a basis for making hiring decisions. In selection terms, accuracy is referred to as validity. In pursuit of increased validity, researchers have devoted their efforts to the development of more precise measurement techniques regarding both predictors (test, interview, simulation) and criteria (turnover, sales style, quality of production). Indeed, to improve prediction capabilities, multiple predictors and multiple or composite criteria are now regularly employed (Dunnette, 1966; Guion, 1965; Schneider, 1976). Of course, under the pressure of current federal legislation, differential validation studies are also required wherein the validity of a selection procedure is verified on, and for, different race and sex subgroups (cf. Guion, 1976) but this issue will not receive attention in the present paper.

---

1I would like to thank Chris Argyris, Gini Buxton, Miriam Erez and John Parkington for comments on an earlier version of this paper.
Personnel psychologists, then, both academicians and practitioners, have been concerned with refining techniques for selecting a best person from a number of people; their interest has been in how one person differs from another. At the same time, organizational behaviorists have been promoting ideas suggesting that the properties of organizations, not the individual attributes of people, are the important data in predicting and understanding behavior in the work setting. Theory Y, System 4, Consideration, Participation in Decision-Making; we are told that these are the organizational styles that result in increased effort and performance, decreased absenteeism and turnover, increased organizational commitment, decreased worker frustration, increased satisfaction, etc. (cf. Schein, 1970).

Unfortunately, the personnel selection and organizational behavior orientations to understanding and predicting behavior in the work setting have been following parallel rather than overlapping or integrated tracks (Porter, 1966). I shall argue here that there would be definite benefits for both selection and organizational researchers if an integrated view of the causes and correlates of employee behavior were developed. This integrated view would pay

\footnote{Lest one be misled to thinking this dichotomous approach only characterizes behavioral research on work, see Cronbach (1957) and Bowers (1973).}
equal attention to individual differences (especially in ability) at the time of selection and to the general style of the organization in which the person will work. The integrated view should result in: (1) Improved validity for selection assessment procedures; and, (2) A basis for understanding why increased levels of performance and satisfaction are found in organizations when certain organizational changes are made.

**Individual Differences in Ability**

The most glaring omission in some recent views of the determinants and correlates of performance and satisfaction in work organizations is the concern for individual differences in ability. People do differ from each other in their abilities and these differences are crucial for organizations so far as both employee productivity and satisfaction are concerned. Ability is crucial because its absence cannot be compensated for by increased attention to the social/emotional state of employees. The important point is that lack of ability puts an upper limit on the level of performance a person may attain and, consequently, on that person's chances of being rewarded; failure to be rewarded may lead to dissatisfaction (Lawler & Porter, 1967).

---

3 I concentrate on ability here but similar arguments about person/situation interaction can be made with respect to other individual attributes (cf. Andrews, 1967; Erez, Note 3; Ilgen, Campbell, Peters, & Fisher, Note 4).
Organizations may gain some control over the productivity and satisfaction of a work force by having carefully developed staffing programs. These programs should include detailed job analyses as a basis for identifying the kinds of abilities people need to perform effectively, the specification of the kinds of performance that indicate effectiveness, development and validation of measures of ability (predictors) and indices of effectiveness (criteria), examination of relationships between predictors and criteria in racial, ethnic and sex subgroups, and utilization of those predictors that demonstrate non-biased validity in making staffing decisions.

These are not trivial matters. Careless electricians, executives with relatively weak administrative capabilities, receptionists with some fine personal assets but low interpersonal competence, and detail men with poor memories for names, may hinder organizational effectiveness through low performance. Such people probably also will experience low job satisfaction.

The techniques personnel researchers have developed for helping match jobs and people constitute the single best proven application of behavioral science technology to the world of work (Campbell, Dunnette, Lawler, & Weick, 1970). However, there has been little progress in the past 35 to 40 years in increasing the predictive accuracy (validity) obtainable through the use of this technology (Ghiselli, 1966; Guion, 1976). Organizations, and personnel researchers themselves, have tended to blame this lack of progress on poor predictors, poor criteria, or both. It may be time to look
beyond the person to the work situation for an explanation of why validity coefficients may be suppressed (Schneider, 1975, 1976).

**Organizational Behavior**

While personnel researchers have recently failed to make significant improvements in validity based on ability measurement, the past 35 years have seen a growth in attention to the socio/emotional side of employees. However, this focus has been on Man with a capital M; the emphasis has not been on how employees differ from each other but on how they are similar (cf. Argyris, 1976).

Beginning with the Hawthorne studies one finds a move away from a focus on individual differences in performance toward a view of what "employees" do, the organizational conditions under which "they" do these things, and attention to work-group, not individual, performance. Although some have been less than complimentary about them (cf. Carey, 1973), the Hawthorne studies are generally thought to have provided the impetus for the view that group pressure ("binging") can keep work-group performance down, while "attention" increases average performance (cf. Schein, 1970). Later commentaries on Man's social/emotional need states have also been thought of as emphasizing the similarities in people. Likert (1961, 1967) and his colleagues (cf. Katz & Kahn, 1966) after all, concentrated on Man's social needs; McGregor (1960), building on Maslow's (1954) writings, has clearly stressed Man's need for self-expression. However, these conceptual positions not only treat Man as having simi-
lar needs and desires, but, as practical theories, they concentrate on Man's socio/emotional needs as ways of "getting at" or "triggering" him to work up to his potential, to be what he can be.

I think this last idea of "triggering" or "getting at" potential is the critical lever to understanding how the sciences of personnel selection and organizational behavior may be integrated. Scholars of the Humanist orientation such as McGregor (1960), Argyris (1957), Likert (1961, 1967) and especially Maslow (1954), have not only been concerned with the emotional state of people. The emotional state was important to these authors because they assumed that negative affective states inhibit the display of man's potential. Organizational conditions, these commentators would note, can either facilitate or inhibit the display of ability and most organizations, through their practices and procedures, create jobs and climates which inhibit people from displaying their abilities. McGregor (1960, p. 48) for example, listed as two of his six Theory Y assumptions:

(a) "The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population." (Italics mine)

(b) "Under the conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilized." (Italics mine)

Note here the emphasis in (a) on the distribution of ability
(Not everyone has equal ability) and, in (b) the constraints modern industrial life puts on those differences (if one has averages, one has differences) being allowed to be expressed.

Following our earlier logic, if people are not allowed to work up to their ability, or their maximum potential, then the very tests of ability used to predict their performance will not be as valid as they could be. We may now consider in detail how the situation may impact on the validity of an ability test.

**Situational Effects on the Ability-Performance Relationship**

I make the assumption that the cause of our inability to improve the level of validity coefficients obtained when predicting job performance is that most organizations do not reward, support or really even require people to display their maximum individual differences in ability on the job.

Consider the typical assembly-line factory job, for example. Each worker on the line is rewarded for doing the same thing as every other worker; indeed he or she is required to work at the same pace, he or she receives the same pay, reports for work at the same time, and so forth. Some pre-employment measure that reveals individual differences in ability cannot be expected to correlate very well with performance on the job because people on the job are required to behave in highly similar ways. And if the organization does not require similar behavior, then other workers already on the job, through social pressure, will. Here, recall again how co-workers
in the Relay Assembly Room at Hawthorne were able to keep everyone producing at the same level through "binging" and other forms of social pressure.

Lest we think the requiring of common behavior only applies to assembly line workers, picture the plight of new management trainees. Perhaps they were hired after an Assessment Center or a battery of tests and interviews. In the selection process, these new management trainees were probably encouraged to "do your best" on the various tests. But how many management trainees are actually placed in positions where they can "do their best"? Some are rather assigned to routine tasks with previously established routine solutions. Oddly enough, another frequent way of insuring that management trainees cannot do their best is to give them assignments which are at an extreme level of difficulty, almost certain to result in failure. These "socialization" experiences of new management trainees tend to insure similar behavior (Schein, 1971). Through the adoption of the organization’s way of doing things deviance is minimized; people conform and behave alike.

A number of researchers have documented the generally high turnover rates of new college graduates because of the lack of stimulation and challenge they experience in their first jobs as management trainees (Porter, Crampon, & Smith, Note 5; Schein, 1971). Yet the basis for initial selection was most likely some prediction about how they would respond to challenge or how capable they were to handle a particular level of responsibility!
Asking the selection process to predict performance that is not the behavior required by the job is not a fair test of the ability to predict long-term individual job effectiveness. The job, and more importantly the job situation, must be one which rewards, supports, expects and encourages people to do their best.

Forehand (1968) has written about some interesting findings regarding this discussion. He obtained climate descriptions of government organizations regarding their tendency to be rules-oriented or to emphasize group participation in decision-making. In both kinds of organizations he obtained peer ratings of employees with respect to their innovativeness. He correlated nine different tests of intellectual capability with the peer ratings and found that 8 of the 9 were significantly correlated with innovativeness in the group-participation condition while none of them were significantly related to the criterion of effectiveness in the rules-centered condition. He (1968, p. 67) argued that our future research efforts

...should ask about the interaction of person variables and environmental variables, and should consider environmental variation in terms of the degree to which they demand or constrain the operation of personal characteristics.

Dunnette (Note 6, p. 25), a long-time advocate of an individual differences-oriented approach to understanding employee behavior, has recently reached a conclusion similar to Forehand's:
An employer's major goal, quite simply, should be to do everything he can to assure ("allow") each employee to give full expression to his abilities, skills, and aptitudes.

Dunnette reached this conclusion after reviewing a number of studies in which he (and others) showed that the best predictor of performance was an ability measure when organizational practices rewarded the display of individual differences in ability. When organizations rewarded people inequitably (either through under or overreward) or the reward system (pay) was on an hourly basis (rather than rewarding people for what they, as individuals, accomplished in the hour), ability was relatively uncorrelated with performance.

Schneider (Note 7) has recently shown that life insurance agencies can be clustered into types on the basis of their climate. One type of agency is reminiscent of McGregor's Theory Y and Likert's System 4 kind of organization--high on supervisory support, low on interpersonal conflict, high on individual autonomy and concern for the individual. The productivity and retention of new agents entering this type of Theory Y/System 4 agency was superior to the others. In keeping with my argument, the predictability of which agents would succeed was also better in this kind of agency.

Further evidence comes from a massive survey prepared by Ghiselli (1966, 1973) on the validity of tests in predicting performance in the work setting. Because Ghiselli found that tests were overwhelm-
ingly better predictors of training performance than for predicting on-the-job performance, he presented both kinds of data in his very useful monograph.

It seems reasonable to conceptualize the training situation as one which allows for the display of more individual differences than the job permits. Indeed there is a consistent finding that training increases the range of individual differences in a group of people. We can hypothesize that because training magnifies individual differences, tests of individual differences are able to predict training performance. Once on the job people may respond to a climate which requires routine rather than individualized behavior but, since the tests are designed to predict differences in job behavior, they are not useful when people must behave similarly. The difference between the behavior required in training, and behavior required on the job may also account for the low relationships found between training performance and on-the-job performance.

The job itself can impact on the predictability of performance. In an innovative study Howard (Note 2) compared the predictability of rated performance using ability test scores alone or in combination with ratings of the reward characteristics of the task at which the person worked. Using Hackman and Oldham's (1975) Job Diagnostic Survey (JDS), Howard showed that knowing the way a person viewed the job they worked at added significantly to the predictability of performance based on ability tests alone (see also Berlew & Hall, 1966).
Taken together these studies offer strong evidence for the idea that an organization's climate for individual differences can have a significant impact on the extent to which ability measures will be reflected in performance. In short, these results argue for the idea that the validity of selection and placement predictions depends on both the quality of the procedures used as a basis for the prediction and the climate in which the individual will eventually work.

On Understanding Increased Average Levels of Performance and Satisfaction

Achieving increased prediction-of-performance capability may be alright but most organizations are concerned with increasing average levels of performance and some are also interested in increased levels of job satisfaction. Interestingly, the kinds of conditions under which organizational behaviorists report such positive outcomes are very similar to those outlined above for increasing selection procedure validity coefficients: Reward for performance (Lawler, 1973), autonomy at work (Alderfer, 1972), lack of inter-personal conflict (Argyris, 1962), a climate of participation and support (Hall & Schneider, 1973), and so forth. Reference to Figure 1 helps provide an explanation for this complimentarity of findings.

Figure 1 presents two scatter diagrams that represent joint distributions of ability and performance. In one case, portrayed in
Fig. 1. Schematic for understanding increased average levels of performance when the ability-performance relationship is improved.
the bivariate distribution with the dotted line, the relationship between ability and performance is weak but positive. Also indicated with a dotted line is the average performance level for all people within the boundaries of the dotted line scattergram.

The second bivariate distribution in Figure 1, enclosed with a solid line, reveals a stronger ability-performance relationship. Note that this second distribution is narrower and extends higher on the performance dimension than the first distribution. That is, although the area within both distributions is similar, the distribution with the solid line represents a movement of people with higher levels of ability to higher levels of performance. Thus, low performing high ability people are now portrayed as high performers.

Note that this changes not only the strength of the relationship between ability and performance but also changes the average level of performance for the group. I hypothesize that this is precisely what happens when the kinds of organizational conditions discussed above exist in the work setting. Thus, what I propose is that under such conditions people are more likely to work up to their ability. Since work group performance is simply a function of how individuals perform, when those at the top of the ability distribution produce at a level that is commensurate with their potential then total work group performance must be generally higher than when high ability people perform below capacity.

Increased levels of satisfaction should also follow. The idea
that people will be more satisfied follows from the consistent finding that on challenging and enriching jobs, in more supportive organizations, and in organizations which reward people as individuals, employees tend to be more satisfied.

One suspects that organizations have defined rigid rules of behavior for their employees so that they can gain control over individual differences; so they can accurately predict the behavior of aggregates of employees. It is paradoxical, but nevertheless apparently true, that just the opposite kind of orientation towards people, i.e., creating a climate supporting and rewarding the display of their abilities, will yield the same predictability of behavior with the added benefit of having higher average production and a more satisfied work force. Thus, although the potential to control behavior will have been taken away from management in a climate for individual differences, because accurate predictions will be possible, control would seem to be less necessary. It is precisely this lack of organizationally imposed control that should yield the more satisfied work force.

In Conclusion

Wise personnel selection decisions are at the foundation of an effective organizational behavior program in the work setting. People without requisite abilities cannot do their jobs effectively; attention only to their social/emotional state will not be helpful in producing a productive and satisfied work force.
On the other hand, appropriate organizational behavior practices can reward, support and encourage people to display the abilities they have. A good personnel selection system in such an organization will more likely be valid with concomitant higher levels of production and satisfaction.
Reference Notes


2. Howard, A. Intrinsic motivation and its determinants as factors enhancing the prediction of job performance from ability. Unpublished manuscript, University of Maryland, Department of Psychology, 1976.


7. Schneider, B. Organizational type, organizational success, and the prediction of individual performance. Unpublished manuscript, University of Maryland, Department of Psychology, 1974.
References


### Distribution List

1. **Commanding Officer**
   - U.S. Naval Medical Research Center
   - Washington, DC 20334
   - ATTN: Library

2. **Chairman**
   - Behavioral Science Department
   - Washington, DC 20334
   - ATTN: Library

3. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

4. **Chief of Naval Personnel**
   - Naval Air Station
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

5. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

6. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

7. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

8. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

9. **Chief of Naval Personnel**
   - Naval Training Command
   - Pensacola, FL 32500
   - ATTN: CAPT Bruce Stone, USN

10. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

11. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

12. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

13. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

14. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

15. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

16. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

17. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

18. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

19. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

20. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

21. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

22. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

23. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

24. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

25. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

26. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

27. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

28. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacola, FL 32500
    - ATTN: CAPT Bruce Stone, USN

29. **Chief of Naval Personnel**
    - Naval Training Command
    - Pensacol...
Air Force

1 Technical Director
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Headquarters:
U.S. Army Administration Center
Personnel Administration Combat
Development Activity
ATCP-HQ
P.O. Benjamin Harrison, IN 46249

1 Armed Forces Staff College
Norfolk, VA 23511
ATTN: Library

1 Commandant
U.S. Army Infantry School
Fort Benning, GA 31905
ATTN: ATSM-DET

1 Deputy Commandant
U.S. Army Institute of Administration
Fort Benjamin Harrison, IN 46216
ATTN: EA

1 Dr. Ralph Ousek
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Dr. Joseph Ward
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 HQ USAREUR & 7th Army
OCSOPS
USAREUR Director of GED
APO New York 09401

1 ARI Field Unit - Leavenworth
Post Office Box 3122
Fort Leavenworth, KS 66027

1 Dr. Ralph Carter
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Dr. Milton S. Katz, Chief
Individual Training & Performance
Evaluation
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

Army

1 Technical Director
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Headquarters:
U.S. Army Administration Center
Personnel Administration Combat
Development Activity
ATCP-HQ
P.O. Benjamin Harrison, IN 46249

1 Armed Forces Staff College
Norfolk, VA 23511
ATTN: Library

1 Commandant
U.S. Army Infantry School
Fort Benning, GA 31905
ATTN: ATSM-DET

1 Deputy Commandant
U.S. Army Institute of Administration
Fort Benjamin Harrison, IN 46216
ATTN: EA

1 Dr. Ralph Ousek
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Dr. Joseph Ward
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 HQ USAREUR & 7th Army
OCSOPS
USAREUR Director of GED
APO New York 09401

1 ARI Field Unit - Leavenworth
Post Office Box 3122
Fort Leavenworth, KS 66027

1 Dr. Ralph Carter
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

1 Dr. Milton S. Katz, Chief
Individual Training & Performance
Evaluation
U.S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

Air Force

1 Research Branch
AF/0/PMXW
Randolph AFB, TX 78148

1 Dr. G. A. Eckstrand (AFHRL/AST)
Wright-Patterson AFB
Ohio 45433

1 AFHRL/DOU
Stop 633
Leachland AFB, TX 78235

1 Dr. Martin Rockaway (AFHRL/TT)
Lowry AFB
Colorado 80230

1 Instructional Technology Branch
AF Human Resources Laboratory
Lowry AFB, CO 80230

1 Dr. Alfred R. Croaly
AFOSR/ML
1400 Wilson Boulevard
Arlington, VA 22209

1 AFHRL/PEO
Stop 633
Leachland AFB, TX 78235

1 Major Wayne B. Sallman
Chief of Personnel Testing
HQ USAF/DPHY
Randolph AFB, TX 78236

1 Air University Library
AUL/01641
Maxwell AFB, AL 36112

Marine Corps

1 Director, Office of Manpower
Utilization
Headquarters, Marine Corps (Code MPU)
MCB (Building 2009)
Quantico, VA 22134

1 Dr. A. L. Slafkosky
Scientific Advisor (Code B-1)
Headquarters, U.S. Marine Corps
Washington, DC 20380

1 Chief, Academic Department
Education Center
Marine Corps Development and
Education Command
Quantico, VA 22134

1 Mr. E. A. Goxor
2711 South Veitch Street
Arlington, VA 22206

Coast Guard

1 Mr. Joseph J. Cowen, Chief
Psychological Research Branch (G-P-1/62)
U.S. Coast Guard Headquarters
Washington, DC 20590

1 Mr. Frederick W. Suffa
Chief, Recruiting and Retention
Evaluation
Office of the Assistant Secretary
of Defense, MSHA
Room 30970, Pentagon
Washington, DC 20301

1 Defense Documentation Center
Cameron Station, Building 5
Alexandria, VA 22314
ATTN: TC

1 Military Assistant for Human
Resources
Office of the Director of Defense
Research and Engineering
Room 30129, The Pentagon
Washington, DC 20301

1 Director, Management Information
Systems Office
GO-2 (MSA)
3917, The Pentagon
Washington, DC 20301

Other Government

1 Dr. Lorraine D. Edye
Personnel Research and
Development Center
U.S. Civil Service Commission
1900 E Street, N.W.
Washington, DC 20415

1 Mr. William Horan, Director
Personnel Research and
Development Center
U.S. Civil Service Commission
1900 E Street, N.W.
Washington, DC 20415

1 Mr. Vern Urry
Personnel Research and
Development Center
U.S. Civil Service Commission
1900 E Street, N.W.
Washington, DC 20415

1 U.S. Civil Service Commission
Federal Office Building
Chicago Regional Staff Division
Regional Psychologist
230 South Dearborn Street
Chicago, IL 60604
ATTN: C. S. Winiewicz

1 Dr. Carl Frederiksen
Learning Division, Basic Skills
Group
National Institute of Education
1200 19th Street, N.W.
Washington, DC 20206

1 Dr. Joseph L. Young
National Science Foundation
1800 G Street, N.W.
Washington, DC 20550