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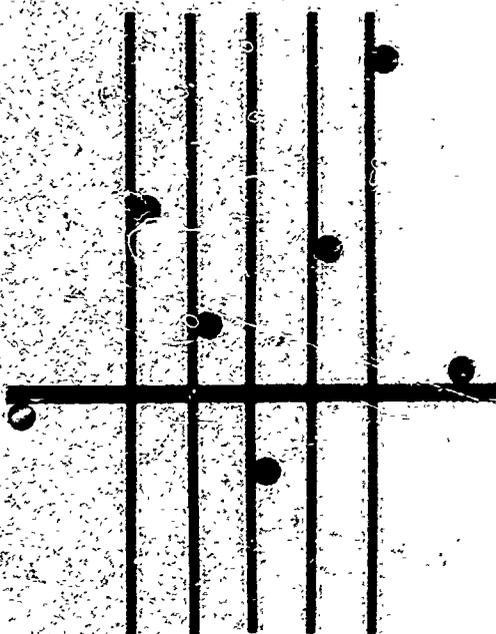
ABSTRACT

This annotated list of Educational Testing Service (ETS) studies includes the following types of investigations with findings related to low socioeconomic and minority groups: studies designed specifically to investigate the educational, personal, and social characteristics of the disadvantaged; studies of other populations of minority groups as a variable; studies concerned with the development of theories, methods, and techniques which hold promise for more effective analyses of data collected in connection with studies of the disadvantaged; and surveys of literature and analyses of theoretical concepts which have significance for research on the disadvantaged. The main list contains resumes of 76 studies completed from 1951 to August 1969. These are listed in 11 categories: background factors (7 studies); cognitive processes, development and functioning (8); educational and vocational attainment (6); evaluation of programs (17); literature reviews (6); prediction (12); racial attitudes (2); school characteristics (2); test characteristics (2); test performance (3); theories, methods, and techniques (9). Also listed with brief descriptive annotations are 22 studies in progress. Availability of reports from ETS is indicated, and citations are supplied for the 18 studies published as journal articles. (JS)

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RESEARCH ON THE
disadvantaged:

AN ANNOTATED LIST OF
RELEVANT ETS STUDIES
1951-1969



August, 1969

EDUCATIONAL TESTING SERVICE, PRINCETON, N.J.

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INTRODUCTION

This annotated list of ETS research studies includes the following types of investigations which have yielded findings relevant to low socioeconomic and minority groups (i. e., the disadvantaged):

Studies designed specifically to investigate the educational, personal, and social characteristics of the disadvantaged

Studies of other populations or characteristics in which socioeconomic status or the performance of minority groups are a variable

Studies concerned with the development of theories, methods, and techniques which hold promise for more effective analyses of data collected in connection with studies of the disadvantaged

Surveys of literature and analyses of theoretical concepts which have significance for research on the disadvantaged

The list includes studies, or phases of studies, completed during the period 1951 to August 1969, as well as studies in progress. No reports are available for the latter. Single copies of the former are available as long as the supply lasts. In some instances, these reports have been published as journal articles. Such reports have an asterisk after the author's name, and the full reference to the journal article is given in the Appendix. Occasionally, the titles of journal articles vary slightly from the titles given in the ETS documents.

COMPLETED STUDIES

BACKGROUND
FACTORSAdolescent Behavior and Interests

The Background and Experience Questionnaire (BEQ) was constructed to assess aspects of cultural orientation of adolescents. It covers three types of behavior: TV viewing, reading, and other extracurricular activities, at high, medium, and low levels of cognitive demand. Items were selected to reflect the preference of students for adult or teenage culture. This report analyzes the 1963 data on scores for a subsample of 268 boys and 210 girls from a total group of 32 public and private secondary schools in the ETS Growth Study.

Some of the findings were that as a group, adolescents were not oriented toward one culture while rejecting the other. Socioeconomic status and academic aptitude were correlated positively with high-level scores and negatively with low-level scores. The BEQ appears to have promise as an instrument to aid in counseling.

M. H. Maier and Scarvia B. Anderson
RB 64-52, CEEB RDR 64-5, No. 6

Cultural Deprivation or Whatever It Is

After outlining the methodology for A Study of Academic Prediction and Growth, the author discusses the problem of defining cultural deprivation, citing such authorities as Riessman, Weaver, Anastasi, Passow, etc. For the ETS Growth Study, cultural disadvantage is defined for certain purposes as a principal's estimate on a seven-point scale of average parental education level in a community; for other purposes, it is defined in terms of student responses to a questionnaire.

There was a strong association between parents' SES and test performance of students. Cultural advantage did not improve prediction when students were in the last two years of college-preparatory high school programs.

There is need for more precise definitions of terms and for additional measures of cognitive and noncognitive development. Poverty does not necessarily mean cultural deprivation, and counselors must be aware of the multivariate nature of cultural phenomena. Local norms are important in this respect.

T. L. Hilton
Paper presented at a symposium on
Implications of Research in Cultural
Disadvantage for Counseling Psychology,
APA 1964.

**BACKGROUND
FACTORS
(continued)**

Educational Achievement Prior to and During High School

A study supported by a grant from the U.S. Office of Education and based on ETS Growth Study data. To examine the argument that many achievement differences among students are associated more with SES than with curriculum or enrollment, multivariate analysis of variance was carried out on 7th-grade STEP and SCAT scores and SES scores (the latter based on selected questions from the Background and Experience Questionnaire). Major analysis sought to establish a baseline with grade 7 data and an indication of change with grades 9 and 11 data.

In general, lower SES groups seemed to perform at a higher level of achievement on more specific (e.g., STEP Science, STEP Listening) than general attributes, and some lower SES schools made greater gains in achievement over time. Nonacademic groups had lower and more uneven achievement performance than academic groups, which implies a need for rethinking the kind of education noncollegebound students should receive.

M. S. Patton
RB 69-29

The Effects of Age, Sex, and Socioeconomic Class on Responsiveness to Two Classes of Verbal Reinforcement

One of the two experiments reported is a replication of previous research which indicated that lower-class children are more responsive to person reinforcers (i.e., "good," "fine") while middle-class children are influenced more by performance reinforcers (i.e., "right," "correct"). The subjects in Experiment I were 20 middle-class and 40 lower-class children, drawn from the second grade of four public schools. Half of the lower-class children were Negro and within each class and racial group, half of the subjects were boys and half were girls. Experiment II was designed to examine the hypothesis that older children are more influenced by abstract reinforcers than younger children. The subjects in this experiment were 20 second-grade and 20 sixth grade-middle class children, equally divided among boys and girls in each grade drawn predominantly from one middle-class school.

The findings of Experiment I were not replicated. As far as socioeconomic status is concerned, in Experiment I, middle-class girls and lower-class boys were more responsive to verbal reinforcement than middle-class boys or lower class girls, while within the lower class, boys were more responsive than girls to verbal reinforcement. In Experiment II, middle-class boys were more responsive than girls to person reinforcers, while girls were more influenced by performance reinforcers. In Experiment II, older children appeared to be more responsive than younger children to performance reinforcers, while boys in general appeared more sensitive to person, and girls to performance reinforcers.

D. Rosenhan and Jean A. Greenwald*
RB 64-39

BACKGROUND
FACTORS
(continued)

The Effects of Social Class and Race on Responsiveness to
Approval and Disapproval

This study examined the effects of approval or disapproval on the performance of lower- and middle-class children by simulating in the laboratory the conditions that may have originally produced their attitudes and behavior in the real world. The subjects were 72 first-grade boys drawn from two public schools of mixed socioeconomic class, which was determined on the basis of parental occupation. Twenty-four boys were middle- and 48 were lower-class children. Half of the lower class were Negro and half were white.

Lower-class children were more influenced by approval and disapproval than were middle-class children. Relative to middle-class children, the performance of lower-class children was markedly improved by approval and markedly worsened by disapproval. While the overall effect of approval was greater than that of disapproval, lower-class Negroes performed better with approval and worse with disapproval than did middle-class whites. Also, the amount of improvement for Negroes in the approval condition was substantially greater than it was for middle-class whites.

D. L. Rosenhan*
RB 65-38

Financial Aid Awards of High School Seniors in the Northeastern
States as a Function of Socioeconomic Class

An analysis of the relationship between socioeconomic status of financial aid applicants and college practices in distributing aid. The study, limited to the Northeastern area of the U. S., where the Scholastic Aptitude Test is largely used for college admission and financial aid decisions, identifies five socioeconomic classes; groups colleges according to source of control, type of student body, and type of institution; and classifies awards in seven combinations of grant, loan, and job.

Results show that in some ways upper-class students receive preferential treatment, apparently because of superior test scores. Lower-class applicants have a better chance of receiving aid than their upper-class peers, but awards to lower-class students more often consist of loans and jobs rather than the outright grants which go to the upper-class students.

G. Schlekat*
RB 68-10

BACKGROUND
FACTORS
(continued)

Talent Losses Before High School: The Number of Tenth Graders
in Various Aptitude and Social Categories Who Leave School
Before Graduation

A study restricted to what happens during the last five semesters of high school, to determine what percent of dropout is concerned with able students. An academic aptitude test and a questionnaire were given to 9,700 public high school sophomores in 1955. In 1959, it was determined whether 9,500 of these students had graduated or not. Seventy-nine percent had graduated. Classified according to academic aptitude, 91% of the most able third graduated; about 80% of the middle third; and about 69% of the least able third. In the most able 10% who do not graduate, one student out of 30 is doing failing work, and drops out before graduation. Dropout is not random, but is closely associated with such environmental factors as family characteristics; school, community, and regional characteristics; peer group orientation; and the student's own self-picture.

G. Stice

RM 60-01

Paper presented at American Association
for the Advancement of Science, Chicago, 1959

COGNITIVE
PROCESSES,
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FUNCTIONING

Let's Look at First Graders

Originally designed and produced by Educational Testing Service for the Board of Education of the City of New York, the first phase in this series of materials is designed to help first-grade teachers understand, assess, and foster the intellectual growth of young children.

The materials, including the guide, Let's Look at First Graders, are available from Cooperative Tests and Services, ETS.

The second phase of this project is described in Studies in Progress under Let's Look at Children.

Cognitive Growth in Preschool Children

As part of a three-year project being conducted by ETS in cooperation with the New York City Board of Education, with support from the Carnegie Corporation, this study was made to gain information about the course of cognitive growth in the preoperational or prelogical child (age 4-6). Subjects were 259 children from four public schools and two private nursery schools, representing a range from low to middle SES. Areas in which tests were constructed and some findings are as follows:

Classification Skills: There were clear developmental differences between age groups for low SES children. These differences were less consistent for the middle SES children, but there was some confounding of this result because the middle SES prekindergarteners had a considerably higher mean Peabody Picture Vocabulary Test IQ score than the middle SES children.

Time Sequence Tasks: SES differences were observed in all four types of items designed for the study--i. e., following linguistic cues, verbal recall and transfer, disposition of structure, and sequence completion.

Distance, Movement, Number, and Time: There were significant differences in performance by age and social class but not by sex.

Number Conservation: Middle SES children performed considerably better than low SES children.

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FUNCTIONING
(continued)**

Basic Language Structure: Most of the children's grammatical errors appeared to be governed by rules and strategies; they were not mistakes of random guessing. Lower-class children lagged significantly behind middle SES in understandings of same/different distinctions and in concepts of more/less, and they had difficulty with comprehension of plurals and prepositions. Low SES subjects performed comparably to middle SES children, however, in the comprehension of negation and conjunctions.

R. S. Melton, Rosalind Charlesworth,
Barbara Rothenberg, Masako N. Tanaka,
L. W. Pike, and Anne M. Bussis
RM 68-13

Negro-White Differences in Adolescent Educational Growth

The present study was designed to compare, longitudinally, the academic growth of Negro and white students who attended the same high schools and were enrolled in the same curricula, and also to investigate the relationship of a measure of socioeconomic status to academic growth.

The results confirmed the findings of cross-sectional studies of differences in Negro-white academic growth: on most tests, but not all, the Negro students exhibited a lesser degree of growth. The results also indicated that rate of growth depended on which school system and which curriculum the students were enrolled in.

A check on the within-group homogeneity of regression indicated that the regression slopes differed significantly among the groups categorized by race, sex, school, and curriculum, and thus, conventional covariance adjustment for differences in socioeconomic status was not appropriate.

The authors concluded greater effort should be made in collecting data about the schools and their subjects in order to gain a better understanding of circumstances and conditions that helped produce the observed results.

M. Rosenfeld and T. L. Hilton
RB 69-71

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FUNCTIONING
(continued)

Negro-White Differences in Intellectual Growth

This paper reports on a longitudinal investigation of the intellectual growth of 316 Negro and 501 white students in grades 5, 7, 9, and 11 in one Midwestern and one Western City. As participants in the ETS Growth Study, all students had taken the Sequential Tests of Educational Progress, School and College Ability Tests, and a measure of socioeconomic status taken from the Background and Experience Questionnaire. Multivariate analyses of variance were used to analyze the data.

Test scores of white subjects were significantly higher than Negroes at grade 5 on all tests. Analyses of covariance used to equate on racial differences in SCAT and STEP indicated that whites not only start out higher but continue to grow faster than Negroes on most tests in the battery. Both Negro and white subjects continued to gain and grow, however, on all SCAT and STEP tests and neither group declined from one testing to the next, regardless of the curriculum in which the students were enrolled. The Town-Curriculum-Race interactions should be explored further to determine why Negro academic students showed accelerated rates of growth on Reading and Listening relative to white nonacademic students in one town but not in another.

M. Rosenfeld

Paper presented at APA, Division 17
Symposium: Exploration in Vocational
Development and Education

Academic Growth in Predominantly Negro and Predominantly
White Colleges

Literature is briefly reviewed supporting the fact that Negro colleges as a group do not compare favorably with predominantly white institutions in financial resources and faculty qualifications. There has, however, been little research on the effects of the predominantly Negro college on its students. This study investigated the relative effectiveness of the two types of colleges.

Seven predominantly white colleges were matched (according to purposes, type of control, and ability level of students) with seven predominantly Negro colleges, to compare student academic growth. The sample consisted of 406 students from the former and 327 from the latter. All had taken the Area tests of the Graduate Record Examination (GRE) Institutional Testing Program as college seniors and the Scholastic Aptitude Test (SAT) as entering freshmen.

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(continued)

No significant differences were found between the two racial groups in GRE Social Science or Natural Science scores when SAT scores were used as covariates. Inspection of regression lines within each of the 14 colleges also supported the conclusion that neither group of colleges was any more or less effective in student academic growth as measured by the GRE Area Tests.

The results of this study provide no evidence that one group of colleges is any more or less effective than the other in improving the achievement of students who have similar aptitude test scores at the time of entrance to college. However, since neither group was completely representative of all colleges in its racial category, generalizations from the sample in this study to colleges in either racial group are not warranted.

J. A. Centra, R. L. Linn, and
Mary Ellen Parry
RB 69-39

An Exploratory Study of Word Associations of Negro College Students

This pilot study attempted to identify and explore through the word association technique possible differences in association responses of Negro and white college students. With the use of group written procedures, two word association lists of 50 words were each administered to 50 Negro college students. Forty-one words were taken from the Kent-Rosanoff list, 29 from the Palermo-Jenkins list, and 30 were words used in analogy items of the Scholastic Aptitude Test.

The results were generally similar to those found in previous normative studies, although there were slightly smaller proportions of matching from class primary responses to noun, pronoun, and adverb stimulus words, and of opposite responses to "opposite-evoking stimuli." A number of the responses indicated reading difficulty or misunderstanding of the word.

L. H. Belcher and J. T. Campbell*
RB 68-4

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(continued)

Reasoning, Relationships, and Relatedness of Words: A Study of
the Effects of Sociocultural Level and Definitions on the
Solution of Analogy Items

This study attempted to determine 1) the effects of providing students with definitions in connection with analogy items; 2) whether providing definitions has differential effects on students of different sociocultural levels; and 3) where, in the solution process, differences occur in reasoning among students of different sociocultural backgrounds.

Results showed 1) a significant effect attributable to occupational prestige level (e.g., the higher the level, the more correct answers); 2) a significance in facilitation of solutions independent of occupational prestige level; and 3) significant differences among levels of occupational prestige in rated ease of relating word pairs. Subjects were 11th-grade students.

J. R. Gentile
RB 67-36

Toward an Experimental Analysis of Reasoning on the Scholastic
Aptitude Test: A Pilot Study

To discover why the mean for Negro students seeking college admission is consistently lower than that of whites on tests such as the Scholastic Aptitude Tests, the technique of having subjects think aloud while solving antonym, analogy, and data sufficiency items was used. The nine male volunteer subjects (eight Negroes, one white), ranging in age from 15 years, 3 months to 17 years, 5 months, were enrolled in a morning school seeking to improve the teaching and learning of "inner city," poverty-background high school students. Two groups of each type of item were assembled and each S received one group of items about which he was to think aloud, while the words from the other were used for free association. Instructions for antonym and analogy items emphasized that the examiner was primarily interested in "what the item makes you think about when trying to answer it." Subjects in the D (Definitions) treatment group were given definitions of words they did not know; subjects in the A (Answer) treatment groups were given the answers to each question. Instructions for the word associations were designed to elicit as many associates to the stimuli word as S could produce.

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(continued)

The results indicated that most of the subjects were quite verbally restricted, in the sense that they seldom spoke spontaneously. Also, they appeared to have few associates to words employed and many "no response," clang associates, and associates to words mistaken for other words. Providing definitions of words did appear to improve the quality of responses and to increase the probability of a correct solution. On the other hand, providing answers to questions did not appear to improve the quality of verbalizations.

J. R. Gentile
RM 66-26

**EDUCATIONAL
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ATTAINMENT**

Adjustment to College: A Study of 10,000 Veterans and Nonveteran Students in 16 American Colleges

A study originating with CEEB with support from the Carnegie Corporation, and completed in 1951 by ETS. Some findings: veterans performed better than nonveterans of equal scholastic ability. Veterans who would not have attended college without GI Bill financial assistance performed better academically than did veteran classmates who would have gone to college anyway. This finding was expected to exert a favorable influence on efforts to obtain increased aid for needy students.

N. Frederiksen and W. B. Schrader
(Hardbound book, limited offset edition,
ETS 1951)

Changes in Nonwhite Employment 1960-1966

This study compares changes in white and non-white employment during 1960-63 and 1963-66, to determine the effect on employment of the Civil Rights Revolution. The data employed were percentage breakdowns of occupational distribution by race and sex which are published each month by the Bureau of Labor Statistics, and are based on a sample survey taken each month covering the week which contains the 12th of the month.

The employment status of Negroes and other nonwhites presents a pattern of general improvement during the period 1960-66. The number of nonwhites in higher status occupations increased substantially during this period. The proportion of nonwhites in the lower status declined, even though total employment showed a substantial increase. A difference in rate of change was also noted for professional and managerial occupations, on the one hand, and the clerical, craftsmen, foremen, and operatives occupations on the other. However, "the employment gap" between whites and nonwhites is still extremely large, insofar as the better occupational categories are concerned.

J. T. Campbell and L. H. Belcher*
RB 66-53

Equality of Educational Opportunity

A survey conducted in response to Section 402 of the Civil Rights Act of 1964, concerning "lack of availability of equal educational opportunities for individuals by reason of race, color, religion, or national origin, in public educational institutions..."

**EDUCATIONAL
AND VOCATIONAL
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(continued)**

Educational Testing Service was the contractor for the major public school survey, providing technical assistance in planning the survey, furnishing existing published tests for use in the survey, carrying out the administration of these tests and of special questionnaires developed by the National Center for Educational Statistics of the USOE, analyzing the data, and preparing the report.

Achievement tests were administered in grades 1, 3, 6, 9, and 12. With some exceptions (notably Oriental-Americans), the average minority pupils' scores were as much as one standard deviation below the majority pupils' scores in Grade 1. At Grade 12, minority scores were farther below the majority than were the first graders'.

Variations in facilities and curricula of schools accounted for less variation in pupil achievement as measured by standardized tests, than the quality of teachers. Pupils' achievement was strongly related to educational background and aspirations of their fellow students.

A publication of the National Center for Educational Statistics, United States Department of Health, Education, and Welfare, Office of Education.

U. S. Government Printing Office, 1966.

J. S. Coleman and others

High School Attrition

A study to describe the high school dropout with regard to educational, vocational, and sociological characteristics. Data were collected from a stratified sample of 9,699 tenth-grade students in 97 public schools. A follow-up was made two years later to see which pupils had completed high school.

School achievement was the most important factor related to attrition. Nearly half of the pupils in the lowest quartile or quintile of their class did not complete high school, and nearly half of those pupils who were over-age for their grade probably because of earlier school failures, did not graduate. Other important factors were post-high school plans of students and their friends, and low academic aptitude (which did not bear a strong relationship to poor achievement). In addition, family factors, nonacademic curricula, and regional factors (i.e., dropout more marked in the South than in other regions) emerged. There is no single factor that can be pointed to as the cause of dropout.

G. Stice and Ruth B. Ekstrom
RB 64-53

**EDUCATIONAL
AND VOCATIONAL
ATTAINMENT
(continued)**

Learning and Teaching in Atlanta Public Schools

A study undertaken by ETS in 1955-56 at the request of the Atlanta Board of Education, to assess and report differences in achievement between white and Negro students, differences between white and Negro teachers in efficiency, and to suggest policies for placement of students and for teachers in the event of changing conditions (i.e., desegregation). All pupils in grades 4 and 6 were given the Stanford Achievement Test in reading and arithmetic; all 8th-graders took the Iowa Every-Pupil Test in arithmetic, and all 12th-graders took the Essential High School Content Battery (World Book). Teachers took the NTE Common Examination, with primary teachers electing to take the NTE Optional Examination in Early Childhood Education. Results are summarized in Part I; charts, tables, and figures discussed in Part I are contained in Part II.

In general, white pupils came close to national average in reading, with Negro students falling below the average. In arithmetic, the results were similar except that Negro students did slightly better than in reading. Both groups at the high school level did better in science and were poorer in social studies and in 12th-grade English--a possible reflection of the achievement of their teachers in these subjects as revealed by teachers' NTE scores.

W. G. Findley
SR 57-001 and 57-002

Two Variables Associated With Differential Productive Cultural Involvement Among Lower-Class Negro and Caucasian Young Men

The major hypothesis of this study was that, irrespective of race, the level of economic and educational involvement among lower-class young men was related to their achievement orientation and their sense of the locus of control over events in their lives. The subjects,--30 Negroes and 30 Caucasians between the ages of 16 1/2 to 21 years--were placed in three groups: Stable Performers, who had a 2-year history of consistent employment or school attendance; Rolling Stones, who had a history of consistently interrupted employment or school attendance for 2 years prior to the study; and Lookers, who had looked into jobs and/or school during the past 2 years but never followed through on them. Intelligence test scores derived from the Revised Beta Examination, were held constant for all subjects and subjects were matched for socioeconomic status by using father's occupation. Four individually administered tests measured achievement orientation and locus.

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AND VOCATIONAL
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(continued)

As far as achievement orientation is concerned, an analysis of variance revealed that both degree of productive involvement and racial membership related significantly to need for achievement; degree of productive involvement effects were found on the expected occupational choice measure of level of aspiration, as well as a significant interaction effect of productive involvement and racial group membership; and productive involvement in the culture was found to relate significantly to all of the indices of risk-taking used in this investigation except the "risk score," but no significant racial differences were found on any of the measures of risk-taking. As far as locus of control is concerned, degree of productive involvement was related significantly to locus of control, i.e., the more involved subjects perceived themselves as being more in control of their environment than the opposite.

W. S. Hall
RB 69-7

**EVALUATION OF
PROGRAMS**

**Development of Evaluation Measures for Use with Neighborhood
Youth Corps Enrollees**

Report of the initial phase in the development of a battery of 13 tests for research and evaluation with disadvantaged adolescents in a work-training program (U. S. Dept. of Labor Contract No. 66-00-09). The Introduction includes Purpose of the Study, Description of the Neighborhood Youth Corps Program and its goals and objectives, a discussion of Measurement Problems with Culturally Deprived Groups, Available Formal Measures, and Evaluation vs. Prediction. Chapter II deals with Development of the Preliminary Measures; Chapter III describes the Sample, Administration and Data Analyses. Chapter IV describes Item Analyses, Urban-Rural Comparison, Reliability and Validity, Intercorrelations and the Factor Pattern, Criterion Scales, and Specific Enrollee Measures. Chapter V deals with Conclusions and Recommendations.

The 13 measures developed were in the areas of Job Knowledge (JK); Vocational Plans and Vocational Aspirations (VP and VA); Interest in Vocational Tasks (VI); Attitude Toward Authority (AA); Self-Esteem (SE); Deferred Gratification (DG); Job Seeking and Job Holding Skills (JS and JH); Motivation for Vocational Achievement (MVA); Practical Reasoning: Map-Reading (PRM); Practical Reasoning: Zip-Coding (PRZ); Practical Reasoning: File-Card Sorting (PRZ); Enrollee Rating Scale (ERS) and Counselor and Supervisor Rating Scales.

The most effective single measure in intellectual-ability was Job Seeking Skills. Motivation for Vocational Achievement and Job Holding Skills were the most promising of the attitudinal measures. Development of normative data on a larger and more diverse sample is urged, along with development of alternate forms and post-training criterion measures of vocational adjustment.

Phase II of this project is described under Studies in Progress.

N. E. Freeberg
PR 68-5

**Evaluation of Integration of Evanston District 65 Schools:
Interim Report**

An interim report of a study undertaken by Educational Testing Service for the board of Education of the Community Consolidated School District No. 65, Cook County, Illinois, on the effects of school integration by redistricting and busing, upon the pupils, teachers, and parents of the City of Evanston. (This study is part of a three-year study funded for Evanston by the Rockefeller Foundation in March 1968.)

EVALUATION OF
PROGRAMS
(continued)

Contents include background for the study, designs and procedures, data analysis (through April 1969 and projected analyses), and information on reporting and costs.

Work on this project is continuing. See Studies in Progress for a description of current activities.

D. P. Norton and J. Hsia
PR 69-10

Evaluating Title I Activities in the Chicago Public Schools

A report prepared for the Chicago Board of Education. Chapter I: The Nature of Evaluation. Chapter II: Title I Decision-Making. Chapter III: General Evaluation (includes objectives of the Chicago Title I projects, suggested evaluation design and instruments, and considerations for data collection and analysis). Chapter IV: Specific Activity Evaluation. Requests for copies should be sent to Miss Elberta Priutt, ESEA Director, Board of Education, 228 North La Salle Street, Chicago, Illinois 60601.

Work on this project is continuing. See Studies in Progress for a description of current activities.

G. L. Marco
PR 68-6

A Survey of Opinions Regarding 1967-68 Chicago ESEA Title I Programs

A detailed report of the results of a questionnaire (developed by Educational Testing Service) distributed to key personnel in Chicago city schools and the community in June 1968.

The questionnaire was designed to obtain information about a) what the goals of Title I projects should be, b) how well Title I programs were accomplishing their goals, c) what programs should be discontinued or revised, and d) how programs should be revised. Ratings were obtained in five areas: arithmetic, attitude toward school, self-image, reading, and English skills. In addition an overall rating was obtained.

EVALUATION OF
PROGRAMS
(continued)

Contents include design of the questionnaire and a description of the respondents; ratings and recommendations; and an analysis of respondents' comments. The complete questionnaire is reproduced in the Appendix.

Requests for copies of the report should be addressed to Miss Elberta Priutt, ESEA Director, Board of Education, 228 North La Salle Street, Chicago, Illinois 60601.

G. L. Marco and Sandra R. Landers
PR 69-8

An Evaluation of a Community Program of Compensatory Education for the Culturally Disadvantaged

The Threshold Program of the Friends Neighborhood Guild in Philadelphia, an educational and counseling program to guide Negro high school students in obtaining acceptance into post-high school education, was evaluated. The evaluation included administration of ability, achievement, and interest tests, interviews with students, and a tabulation of high school performance. Comparisons with a control group indicated that there was no change in program students with respect to traditional measures or number accepted in post-high school education. There was a significant change in the attitudes of students in the program and their parents, but this change did not appear to have a significant relation to post-high school acceptance.

G. Lutz 1968
(Study is being offered as a doctoral dissertation at Lehigh University)

Operation Upgrade: Effectiveness in Attaining Cognitive Objectives

Operation Upgrade was a program of workshops conducted by the New York City Board of Education in District 8, for teachers of grades 5-8 from schools enrolling large numbers of minority group children. Its purpose was to increase the teachers' knowledge of ethnic group characteristics, to change attitudes toward minority groups, and to construct effective curriculum materials for these children. ETS evaluated progress in the objective of teachers' knowledge of ethnic group characteristics and group relations. A 75-item test was administered after 15 workshop sessions.

**EVALUATION OF
PROGRAMS
(continued)**

Results of the test failed to support the effectiveness of the program. Apparently there was insufficient stress in factual content in the workshop sessions. It is not appropriate, however, to generalize from these results to other programs for teachers of other grades. Further information may be obtained from Operation Upgrade, P. S. 188 Bronx, 1221 Spofford Avenue, Bronx, New York.

T. S. Barrows
Curriculum Studies Report
June 1967

Planning for Innovation: A Case Study of the New York City School-Community Interaction Umbrella Program

This is a study of the nature of decision-making within a functionally decentralized structure. In 1967 several school and community agencies submitted abstracts of projects they wished to undertake, to the Title III Office of the NYC Board of Education. The five "umbrellas" covering the programs were teacher growth; curriculum; guidance-pupil personnel service; basic skills (e.g., English as a second language); and communication, with 10-15 projects under each umbrella. ETS was asked to evaluate the organizing and planning.

Some participants were eager to protect the autonomy of their components, and were unwilling to grant Program Development Boards more than limited advisory and administrative roles; others would allow Boards to have greater decision-making responsibility. Communication among participants was a key variable; clear delineation of authority was a critical factor. Heterogeneity of backgrounds enhanced participants' contributions to solutions of joint problems.

G. Gordon
PR 68-1

Pupil Personnel Services for the Model School Division

The purpose of this report is to describe the organization and functions of the Department of Pupil Personnel Services (PPS) in the Washington, D. C. public schools in order to recommend to the Model School Division (MSD) which services its own decentralized organization. The MSD functions problems of public urban education.

The survey was organized to describe PPS from two perspectives: that of the personnel in the divisions of the department, and that of the schools using the services of the department. Two major sources of data, interviews, and questionnaires were employed. Interviews were conducted

**EVALUATION OF
PROGRAMS
(continued)**

with the heads of the seven divisions that make up PPS. Questionnaires were circulated among the rest of the PPS staff, including the guidance counselors assigned to MSD schools, and among principals and assistant principals of those schools.

Gita Wilder
Curriculum Studies Report

An Evaluation of a Summer Reading Institute, 1968

The Model School Division (MSD) of the Washington, D. C. Public Schools, which functions to provide a testing ground for new approaches to the problems of public urban education, conducted a Summer Institute in Beginning Reading in Grades K-3. The objective of this institute was to modify teachers' classroom behavior by providing training in four methods of reading instruction. ETS assisted MSD personnel in the development of a) formal institute objectives, b) a research design, and c) instruments tailored to the specific needs of this program.

A questionnaire, developed to assess many of the institute's objectives, was administered to 69 K-3 teachers at the end of the six-week training session. Questionnaire data indicated that the large majority of institute participants said they learned "quite a bit" about reading methodology, found the content of the institute relevant to their needs, intend to implement what they learned, and generally liked the way the institute was conducted.

M. Rosenfeld
PR 69-3

Bluffton Interterm: Evaluation

Bluffton College conducts a short interterm each year between its first and second terms. During the 1968-69 school year the chosen topic was poverty. The purpose of this study was to ascertain whether the program changed the students' attitudes towards and perceptions of poverty. A single stimulus version of the Allport, Vernon, Lindzey, Study of Values, Kaufman's Status-Concern Scale, and a number of Semantic Differential scales covering poverty related concepts were administered to the students. A random halves, pretest-posttest design was used. Changes in measured attitudes and perceptions were small although statistically significant in several cases. The data seemed to support a slight beneficial effect.

T. S. Barrows
PR 69-67

EVALUATION OF
PROGRAMS
(continued)

Project Head Start at Work

Report of a survey of 1300 Head Start classes in 335 Project Head Start centers during the summer of 1965, conducted for the Institute for Educational Development by Educational Testing Service and a team of 39 observers. Includes background and method of the study, samples and generalizations from the observation record, and implications for education. Appendices include the observation guide and an outline for summary of observations used by each observer, a map showing locations of the centers visited, and a list of centers by state.

Among the outstanding observations is the fact that preschool disadvantaged children have difficulty in communicating, and require an almost continuous interaction with an older person--either an adult or a teen-ager--in the "teacher" role.

J. E. Dobbin*

(Report issued by Institute for Educational Development, April 1966)

Project Head Start Summer 1966. Section One: Some Characteristics of Children in the Head Start Program (Final Report)

This report describes a normative study carried out by Educational Testing Service in the summer of 1966 as part of a large scale research program undertaken by ETS for the Office of Economic Opportunity. The normative study was designed to provide descriptive information on children who have participated in Head Start programs.

Two types of samples were drawn, one based on Census Bureau information (N = 589) and one drawn from a stratified sample selected by ETS (N = 445). Instruments used were the Stanford-Binet (L-M, Short Form), the Caldwell Pre-school Inventory, and the Project Head Start Inventory.

The report presents data on the test results (including item omissions, distributions, and reliability estimates). The reader is asked to exercise care in drawing inferences from the data presented.

R. H. Williams and Elizabeth Stewart

**EVALUATION OF
PROGRAMS
(continued)**

**Project Head Start Summer 1966. Section Two: Facilities
and Resources of the Head Start Centers (Final Report)**

This report presents data collected in the Summer 1966 Project Head Start program, by Educational Testing Service for the Project Head Start Research and Evaluation Division of the Office of Economic Opportunity.

The "Center Facilities and Resources Inventory" (provided by the Project Head Start Research and Evaluation Division) was sent to 630 Head Start Centers. Returns were received from 326 centers.

Data are presented in the following areas: number and kinds of Center staff; children in the Centers: ages, ethnic background, behaviors; facilities and resources of Centers; and orientation and goals of Head Start programs.

The Appendix contains a reproduction of the Center Facilities and Resource Inventory.

J. L. Boyd

**Project Head Start Summer 1966. Section Three: Pupils
and Programs (Final Report)**

This report presents a result of an investigation of the relationships between pupil and program characteristics and pupil outcomes on certain prescribed instruments and on other newly developed instruments, carried out by Educational Testing Service for the Project Head Start Research and Evaluation Division of the Office of Economic Opportunity.

The report presents answers to the following questions relevant to Head Start classes in the summer of 1966: Where were Head Start children at the beginning? At the end? Were changes observed in the children? What are the reasonable alternative sources of these changes? Did Head Start classes differ from each other, and in what ways? Was there a relation between specific differences and amount of change?

Information collected in the study "indicates that positive, consistent and developmentally desirable effects were observed during the summer 1966 program."

The Information Collection Forms and Field Director's Manual used are reproduced in the Appendix.

G. Temp and Scarvia B. Anderson

EVALUATION OF
PROGRAMS
(continued)

Untangling the Tangled Web of Education

Papers from a symposium sponsored in 1968 by the National Council on Measurement in Education, in conjunction with the annual conferences of the Educational Records Bureau and Educational Testing Service. The symposium, dealing with research and measurement considerations related to assessing children's development in interaction with school, family, and community influences, covered the following topics: Early Schooling: What Is It All About?; The Family and Community: What Are Their Roles in the Educational Process?; The Child: His Cognitive, Person-Social, and Physical Development -- A False Trichotomy?; How Are Measurement Strategies Related to Models of Human Development?; Can You Do Real Research in the Real World?; The ETS-OEO Longitudinal Study of Disadvantaged Children; and The Scientific and Social Significance of the Longitudinal Study of Disadvantaged Children. Copies are available from the Office of Information Services, ETS.

On Evaluating Title I Programs

Proceedings of a workshop on the evaluation of Title I programs conducted by Educational Testing Service in 1966. Papers are presented under two main topics: Educational Objectives and the Role of Evaluation, and Developing Evaluation Instruments. Excerpts from discussions by participants are included at the end of each main topic.

Copies may be ordered from the Office of Information Services, ETS.

Curriculum Innovations and Evaluation

Papers presented at the 1968 ASCD Pre-Conference Seminar on Curriculum Innovations and Evaluation, held at Educational Testing Service, discuss the role of evaluation, approaches to the definition of objectives, uses and limitations of available instruments, procedures for analyzing test results, principles and problems of research design, and illustrations of the development and conduct of three types of curriculum evaluation projects.

Copies are available from the Office of Information Services, ETS.

LITERATURE
REVIEWS

The Biographical Information Blank as a Predictor of Student Achievement and Vocational Choice: A Review

Although this review is not directly concerned with the disadvantaged, it has been included because of the implications of the use of the biographical information blank in studies of the disadvantaged.

This paper reviews literature dealing with use of the biographical information blank (BIB) among student populations from the late 1930's through 1966. The studies are considered under the four criterion areas of scholastic grades, creative achievement, persistence in school, and vocational or curriculum choice.

To date, the BIB has been of little practical value in academic prediction. The potential advantages of the BIB are cited, however, as well as suggestions for future research.

N. E. Freeberg*
RB 66-51

Parental Influence on Cognitive Development in Early Childhood: A Review

This review summarizes literature dealing with child-rearing practices that influence cognitive development. The three major aspects of the literature considered are: (1) studies that attempt to relate measures of the child's cognitive ability to particular parental rearing practices, (2) rearing practices characteristic of various social class levels as related to cognitive performance of children from those social classes, and (3) experimental attempts to enhance cognitive skills in the very young child by specialized training techniques.

N. E. Freeberg and D. T. Payne*
(See also: RM 66-1)

Socio-economic Status and Predictive Test Scores

A review of studies by Brigham, Davis, Lewis, Stroud, Conrad, and Robbins on the relation of socioeconomic status to scholastic achievement and intelligence. Turnbull emphasizes the importance of criteria in the investigation of this problem; that is, "it is essential to define the criterion to which a test is intended to relate, and then to justify inter-group equality or inequality of test scores on the basis of its effect on prediction. ...An equality of test scores that would signify fairness of measurement for one criterion on which cultural groups performed alike would signify unfairness for another criterion on which group performance differed."

W. W. Turnbull
RM 51-9

LITERATURE
REVIEWS
(continued)

Survey of the Literature Relating to the Effects of Cultural
Background on Aptitude Test Scores

This survey of the literature is divided into the following topics: Test Scores and Cultural Influence; Culturally Unbiased Tests: Some Methodological Shortcomings of Comparison Studies; Racial Comparisons; Occupational Group Comparisons; Rural-Urban Comparisons; School Comparisons; Socioeconomic Class Comparisons. Previous Reviews of the Literature and discussions of Aptitude, Cultural Influence, and Cultural Indices are included. Each topic carries a summary. Bibliography.

C. M. Lucas
RB 53-13

Testing of Culturally Different Groups

The purpose of this study was to summarize research findings on testing of individuals from groups, particularly Negroes, which differ in some respects from the majority culture in the United States. Particular attention was paid to factors which appeared to cause or be associated with changes in test scores. The effectiveness of tests in predicting performance of Negroes in integrated and segregated colleges was evaluated. The summary also includes a suggested program of research, designed to fill gaps in present knowledge, with particular attention focused on selection for college and remedying educational deficits at the college level.

J. Campbell
RDR 63-4, No. 14; RB 64-34

On the Structure of Self-Esteem: Comments on Ziller's Formulation

Conceptual issues in Ziller's research on social self-esteem (Ziller, Hagey, Smith, and Long, 1969) were reviewed in the light of recent theoretical and empirical work. Three limitations of the social self-esteem (SSE) measure and its supporting rationale were noted: 1) failure to distinguish between level and source of self-esteem; 2) implicit "masculine" bias, and 3) implicit cultural bias. These considerations would appear to explain the "negative" findings reported by Ziller et al. and suggest modifications of the SSE formulation which could extend its generality.

Rae Carlson
RB 69-38

PREDICTION

The Contribution of Clusters of Biographical Data to Prediction

Although this study did not focus directly on the disadvantaged, it has been included because it indicates that certain types of analyses of background factors might yield information pertinent to low socioeconomic and minority groups.

This study cluster analyzed the 169 items of the ETS Growth Study seventh-grade form of the Background and Experience Questionnaire (BEQ) to develop homogeneous scales in order to determine what dimensions of personal background predict performance on aptitude and achievement measures, whether the background cluster scores add to the prediction of final performance that can be obtained from initial test scores on the same test variables, and whether background cluster scores add to the accuracy of prediction that can be obtained from a comprehensive battery of initial cognitive measures. A random sample of 300 male and 300 female seventh-graders was selected from students who entered the ETS Growth Study as 5th graders in 1961 and were retested in 1964 and 1965, and their responses to the BEQ yielded 10 clusters for the male sample and 9 for the female sample.

A stepwise multiple regression analysis was performed using STEP, SCAT, and the BEQ scores. The results indicate that when used alone, BEQ cluster scores show moderately high prediction of subsequent test performance. Statistically significant but quite small increases to prediction were found when BEQ clusters were used in combination with measures of initial status. BEQ clusters added practically nothing to the prediction, however, when used with a battery of earlier test measures.

J. A. Connolly
RB 68-40

The Interpretation of Law School Admission Test Scores for Culturally Deprived and Non-White Candidates

An Ad Hoc Committee of the Executive Council of the Law School Admission Test Council was appointed to examine background factors particularly associated with cultural deprivation in relation to LSAT scores and academic achievement and to study the law school performance of white and non-white students. A questionnaire which was developed for the purpose of identifying students who were culturally deprived relative to their fellow students was administered in 16 law schools.

None of the differences between the "culturally deprived" and "non-culturally deprived" groups were found to be significant when pre-law and LSAT scores were used as combined predictors or when LSAT was used as a separate predictor. Among 18 statistical tests made using the pre-law record as a predictor,

PREDICTION
(continued)

three statistically different results were obtained: in one school, the "culturally deprived" group earned significantly higher grades relative to prediction, and for two schools, they earned significantly lower grades than predicted.

A general conclusion was that the principles applicable to the use of LSAT scores with respect to students considered to be "culturally deprived" relative to their fellow students are those applicable to the total group.

The number of non-white students was too small to permit a statistically conclusive examination of the prediction of their performance.

Unpublished report of Ad Hoc Committee
on Student Background Factors to
the Executive Committee of the Law
School Admission Test Council, June 1966

Interpreting the Academic Records of Disadvantaged Students

Problems discussed in this paper are: defining "disadvantaged;" examining students' environment for factors which might enable them to adapt to demands of higher education; validity of test scores for the disadvantaged (i.e., "bias" and three possible definitions); whether background information contributes to prediction of high school achievement beyond prediction provided by objective tests.

Some of the conclusions were as follows: Test scores carried most of the weight in prediction, with little evidence of prediction from SES factors. For high school rank-in-class, STEP Writing was best single predictor in high college-sending schools; SCAT Quantitative was best single predictor for students in low college-sending schools.

T. L. Hilton
(A presentation at a symposium on
"Admitting Disadvantaged Students," State
University of New York, Syracuse, 1965.

Personal Background, Experience, and School Achievement: An Investigation of the Contribution of the Questionnaire Data to Academic Prediction

Data on 1,206 boys graduated from academic high school programs in 1961, including SCAT and STEP scores and scores on a Test of General Information (TGI) were examined in relation to responses on a questionnaire concerning the students' experience during the previous year. Scales were created from unit weighting of subsets of 169 questionnaire items to measure variables such as Amount of Low Level TV Watching and Level of

**PREDICTION
(continued)**

Occupational Plans. Criteria examined were scores from the Preliminary Scholastic Aptitude Test (PSAT), College Board English Composition and American History Tests, and student's rank in graduating class.

Biographical information alone predicted objective test criteria and rank in class moderately well, but when used with objective test scores, the test scores accounted for practically all the variance in the criteria. "The ...data suggest that the art of constructing objective tests is well ahead of the art of developing biographical inventories."

T. L. Hilton and A. E. Myers*
CEEB RDR, 65-6, No. 7; RB 66-5

Predicting Success in Law School With Moderators

Admissions committees frequently feel that scores on selection instruments should not be interpreted the same way for all applicants. A given selection instrument may not yield equally accurate predictions for different kinds of applicants. This study was made to determine whether student background characteristics could act as moderators leading to the differential prediction of first-year grades in law school.

The study involved law school students, with first-year law school grade-point averages as the criterion; undergraduate grade-point average, the Law School Admission Test, and French's Insightful Reasoning Test as predictors; and, as moderator variables, the students' responses to a five-item questionnaire on age, college major, student's feeling about adequacy of his college preparation for law school, father's occupation, and time of decision to attend law school.

It was found that background factors (e.g., father's occupation) did not add to validity, and that the value of background factors may lie in their effectiveness as moderators rather than in their utility as predictors. The multiple moderator system, however, is useful for admissions officers in 1) finding out for which types of candidates one can or cannot make accurate predictions, and 2) identifying valid predictors for different kinds of law students.

S. P. Klein, D. A. Rock, and
F. R. Evans*
RM 67-24

The Relationship Between College Grades and Aptitude Test Scores for Different Socioeconomic Groups

A study to compare the relationship between college grades and aptitude test scores for students of high, middle, and low socioeconomic status. Subjects were about 1700 male students

**PREDICTION
(continued)**

in seven colleges who took the Selective Service College Qualification Test (SSCQT) in 1951. Three socioeconomic groups were defined on the basis of responses to a questionnaire containing items on income and occupation of family head.

Scholastic Aptitude Test scores predicted grades equally well and neither overpredicted nor underpredicted for all socioeconomic classes among college students, although it was noted that the population sample contained a very inadequate representation of the lowest socioeconomic levels.

D. G. Schultz
RB 53-18

Concurrent Validity of the PAA and SAT for Bilingual Dade
County High School Volunteers

The Scholastic Aptitude Test (SAT) and the Prueba de Aptitud Academica, examination in Spanish which assesses verbal and mathematical aptitude, as does the SAT -- were administered to 140 bilingual junior and senior volunteers in the Dade County High School system. In addition, a Student Questionnaire was administered to determine orientation to the Spanish and English languages and to obtain an indication of socioeconomic status.

The purpose of the study was 1) to develop and compare PAA-based and SAT-based equations for predicting grade point average (GPA), and 2) to determine whether measures of the student's orientation toward the English or Spanish language, or a measure of his socioeconomic status could be used together with his SAT and PAA scores to gain improved concurrent validity against high school GPA as the criterion.

When formulas for predicting GPA based on PAA and SAT were compared, it was noted that if 200 points were subtracted from the PAA variables, the resulting equations would be nearly identical though the validities were not quite the same. This does not establish that PAA less 200 can be considered a substitute for SAT in general, but it lends more support to this practice than existed previously.

Another finding was that students who appeared to be Spanish-language oriented tended to do relatively better on the PAA, although when the overall validities of the regression systems with varying weights for PAA and SAT were compared, they were found to be not greatly different. In fact, the verbal predictors did not aid much in the prediction; SAT-M alone was about as good a predictor as anything that was tried, including the more complex systems involving language orientation or socioeconomic status along with PAA and SAT.

R. F. Boldt
RDR-68-9, No. 3; SR-69-31

PREDICTION
(continued)

Prediction of Job Performance for Negro and White Medical Technicians: Ethnic Membership as a Moderator of Superior's Ratings

This report documents findings derived from an attempt at criterion development for a larger study on fairness in selection testing. (See PR 69-4, page 31 , and PR 69-6, page 32 .) The criterion of supervisor's performance ratings was examined for evidence of whether the ethnic group membership of both the rater and the ratee influenced the appraisal an individual received.

Subjects were 168 Negro and 296 White Medical Technicians at Veterans' Administration Hospitals. Each technician was rated by at least two superiors. Rating scales and a test of job knowledge were used. (See L. W. Pike, PR 69-4, page 31).

Analyses of mean scores and ratings, correlations, and regression lines revealed that the race of both the person being rated and the person doing the rating has a noteworthy influence on the evaluation received.

An appropriate generalization from the study is that close attention must be paid to the nature of the criterion data in any prediction study.

R. L. Flaughter, J. T. Campbell, and
L. W. Pike
PR 69-5

Prediction of Job Performance for Negro and White Medical Technicians: Development of the Instrumentation

Note: This report, together with PR 69-5, page 31 , and PR 69-6, page 32 , is from a study conducted jointly by Educational Testing Service Commission, funded by the Ford Foundation.

The first phase of a study titled "Test and Job Performance of Various Subgroups Within Specified Occupations" determined the feasibility of gathering data, on a large scale, relevant to problems of test validity for minority subgroups of the population.

This report describes the development of the data collection instruments used in the study, which was carried out on Medical Technicians. Aptitude measures consisted of eight tests drawn from the Kit of Reference Tests for Cognitive Factors, plus a Fine Finger Dexterity test developed by the United States Civil Service Commission. Criterion measures included a Job

**PREDICTION
(continued)**

Performance Appraisal Form for Medical-Technical-Technical Personnel, containing nine rating scales: a Job Knowledge Test; a Work Sample; and a personal history Questionnaire with a supplemental Task Information Checklist.

Rationale for the selection of tests from the Kit of Reference Tests and detailed information on the construction of the criterion measures are provided.

L. W. Pike
PR 69-4

Prediction of Job Performance for Negro and White Medical Technicians. A Regression Analysis of Potential Test Bias: Predicting Knowledge Scores from an Aptitude Battery

Will selected aptitude tests be biased when used to predict success in a particular occupation? The authors believe that the answer to this question depends on the selection of an appropriate criterion. Using data from a study of Medical Technicians in Veteran's Administration hospitals, the authors present information about the comparative strengths and weaknesses of the criteria of supervisory ratings, work sample, and a test of job knowledge for detecting such selection bias. Reviewing findings from a study by Flaughner et al. (PR 69-5, page 31), they suggest that neither supervisory ratings nor work-sample are as satisfactory validating criteria as a job knowledge test.

The 63-item Job Knowledge Test and an eight-test aptitude battery were administered to 287 white and 168 Negro Medical Technicians. Means, variances, and intercorrelations were calculated, and regression lines were determined for each aptitude against the Job Knowledge Test.

Results showed that "the usual hypothesis of cultural bias is not tenable, in that those individuals with supposedly the more favorable background are at a disadvantage on a majority of the tests to be used as selection devices." The results". . .not only fail to expose the type of bias which would ordinarily be predicted, but. . .present some evidence. . . of what might be called a reverse unfairness. To the authors' knowledge, no hypothesis or theory exists to explain this phenomenon."

J. T. Campbell, L. W. Pike, and
R. L. Flaughner
PR 69-6

PREDICTION
(continued)

The Use of Multiple Moderators in Academic Prediction

The present study examined whether several student background characteristics (e.g., father's occupation) could act as moderators leading to the differential prediction of law school grades. A new procedure based on a modification of Ward's hierarchical grouping technique was used for this purpose on the validation sample (n=201). This resulted in a four-group solution using five moderators. Separate regression equations were constructed for each group and applied to corresponding groups in the cross-validation sample (n=201). The results of these analyses indicated that the new multiple moderator technique could reliably identify groups that differed in predictability.

S. P. Klein, D. A. Rock, and F. R. Evans*
RB 67-50
RM 67-24

The Wide Range Validity of Certain New Aptitude Tests

An earlier study revealed that adding certain types of new material to the Scholastic Aptitude Test (SAT) would significantly improve its validity for predicting the college performance of students of high ability. The purpose of this study was to see whether SAT validity might be improved for students of only average ability. Nine colleges, with 9,500 freshman students, participated.

Only slight increases in predictive validity were obtained. However, the results do suggest that certain new types of questions may increase the predictive power of the mathematical section of the SAT. Another important finding was that none of the recommended adjustments would inject any discriminatory bias into a test that has been carefully screened for bias.

R. L. Flaugher and D. A. Rock*
RB 66-54

RACIAL
ATTITUDES

Differences in Selected Attitudes and College Orientations
between Black Students Attending Traditionally Negro and
Traditionally White Institutions

The purpose of this paper was to determine what educationally relevant differences exist, if any, between two groups of black collegians--those who enter traditionally Negro colleges and those who enter integrated ones. On the basis of data from the College Student Questionnaires (Part 1) and the Scholastic Aptitude Test (Verbal), black students entering integrated institutions were found to have higher SAT-V scores, to be more independent, liberal and concerned with social injustice, and to aspire to more years of formal education. Many of the differences between the two groups, however, were found to be highly correlated with SAT scores. Thus, it would appear that to the extent integrated institutions are attracting the higher ability (as measured by the SAT) Negro students, they are also attracting those with a quite different set of attitudes, background characteristics, and orientations toward college.

R. T. Hartnett
RB 69-48

Coins in the Kettle: Models and Donation Behavior

"Coins in the Kettle" included experiments designed to gauge the "helping" behavior of Christmas shoppers in terms of their contributions to the Salvation Army workers' kettle in Princeton and in Trenton, N. J., when a "model contributor" was present and when no "model" was involved; and to assess the impact of the solicitor's race on donation behavior, by having one of the Salvation Army kettles manned by a Negro and the other by a Caucasian.

The presence of helping models significantly increased helping behavior. The race of the Salvation Army solicitor did not affect the percentage of donors willing to contribute money when a model was present, but did affect donation behavior when no model was present, in that fewer donations were made when the solicitor was a Negro.

J. H. Bryan*
RB 67-10

**RACIAL
ATTITUDES
(continued)**

**A Distance Measure of Racial Attitudes in Primary Grade
Children: An Exploratory Study**

A nonverbal distance measure was used to assess interpersonal racial attitudes among primary grade children in segregated and nonsegregated schools. Subjects pasted pictures representing themselves (self-figures) on a series of pages, each of which contained a fixed or "target" figure, such as Negro and white teachers, peers, and a school. Subjects could paste their self-figures in whatever position and at whatever distance they chose from the target figure.

White subjects placed their self-figures farther from Negro than from white target figures; Negro subjects placed them equally close to white and Negro target figures. Compared with segregated subjects, integrated subjects placed the self-figure closer to target figures of the opposite race and closer to the school.

Sandra Cohen Koslin, Marianne Amarel,
and Nancy Ames*
RB 69-11

**The Effect of Race on Peer Evaluation and Preference in
Primary Grade Children: An Exploratory Study**

Attitudes of students in primary grades were explored with regard to the learning ability, school behavior, and social desirability of white and Negro children as classmates. In individual interviews, students at an all-white, an all-Negro, and an integrated school were shown pairs of pictures of classroom events taking place in predominantly white and predominantly Negro classes, and were asked to make judgments about the academic achievement, niceness, school behavior, friendliness, and general desirability of the children in the pictures.

White subjects showed a striking preference for predominantly white classes. Negro subjects were less consistent: some preferred white classrooms; some Negro classrooms; and others showed no preference at all.

Sandra Cohen Koslin, Marianne Amarel,
and Nancy Ames
RB 69-12

SCHOOL
CHARACTERISTICS

Community Socioeconomic Status, Aptitude, and School Achievement

This is an analysis of Growth Study data, 1961 through 1963, consisting of results on SCAT Level 5 and STEP Level 4 Math, Science, Social Studies, Reading, Listening and Writing, grades 5 and 7; plus questionnaires sent to principals of participating schools, requesting information on school characteristics. Schools were classified on a basis of SES using questions 45-49 of the latter. Each student was classified as high- or low-ability by dichotomizing SCAT scores. Four groups emerged: 1) high-ability students in high SES schools; 2) high ability students in low SES schools; 3) low ability students in high SES schools; and 4) low ability students in low SES schools.

The findings on SES indicated that dichotomizing schools on SES and students on SCAT does not consistently increase accuracy of prediction for all STEP tests, but dichotomizing just schools on SES does consistently increase such predictions. Ability emerges as a more important determinant of achievement than SES. Students tend to become more heterogeneous in achievement as they receive more education.

T. L. Hilton and L. A. Pingel
(A presentation at the National Council
on Measurement in Education Meeting,
Chicago, 1965.)

A Study of Secondary School Characteristics as Related to
Test Scores

A study made in 1956 to determine what characteristics of public secondary schools were most closely related to the performances of their students on academic aptitude and achievement tests. Questionnaires were sent to public high school principals to elicit information about their schools, education and occupation of parents, and community characteristics. Ninth- and 12th-grade students were administered a four-part aptitude and a three-part achievement test.

Concomitant variation (e.g., parents of high intellectual ability deciding to live in areas where schools are good) accounted for a high portion of correlations between school-parent-community characteristics and test scores. Aptitude scores are probably also affected by children's educational experiences. Support, instruction, and attitude toward learning make a difference in school achievement, as shown in size-of-class variable and the time teachers have for individual instruction, and the percent-to-college as a school attitude variable.

W. G. Mollenkopf and S. D. Melville
RB 56-6

TEST
CHARACTERISTICS

An Investigation of Item Bias

A study of the variation of Preliminary Scholastic Aptitude Test (PSAT) item scores in different racial and socioeconomic (SES) groups, to determine whether items in the test are biased (bias being defined as item x group interaction.) A sample was drawn from Growth Study participants: Group I (1961), 636 twelfth-graders and Group II (1963), 724 twelfth graders, using all available Negro students and a random sample of an equal number of white students. SES was defined from a score on the Background and Experience Questionnaire given in the Growth Study, using items concerned with father's occupation, father's and mother's education, and the House-Home Index (Kerr & Remmers 1942).

In four separate analyses, the Item x Race and Item x SES Within Race interactions contributed minimal percentages of the total variance of an observation. From the bivariate plots of sums of item scores, there were few items producing an uncommon discrepancy between the performance of Negro and white students. Given the stated definition of bias, it was concluded that the PSAT for practical purposes is not biased for the groups studied.

T. Anne Cleary and T. L. Hilton*
CEEB RDR 65-6, No. 12; RB 66-17

Test Bias: Validity of the Scholastic Aptitude Test for Negro and White Students in Integrated Colleges

To determine whether the Scholastic Aptitude Test is biased as a predictor, a study was made of the regression of college grades on the SAT for Negro and white students in integrated colleges. College grade-point average was the criterion, with high school grade average and rank in class included wherever possible. Samples were drawn from two eastern state-supported or subsidized colleges and one state-supported college in the southwest.

Results showed little evidence that the SAT is biased as a predictor of college grades, although the regression lines for white and Negro students were significantly different in the southwestern college. When high school grades or rank in class was used in addition to the SAT as a predictor, the degree of positive bias for Negro students increased.

T. Anne Cleary*
RB 66-31

TEST
PERFORMANCE

The Effect of Special Instruction Upon Test Performance of
High School Students in Tennessee

To determine whether special instruction would benefit students who had received less adequate instruction and who were less able academically than students in previous coaching studies, special linear programmed materials in verbal and mathematical areas were administered to 11th-grade students in 18 predominantly Negro high schools. Alternate forms of the Preliminary Scholastic Aptitude Test were used for evaluation.

Although there were gains in the experimental group, these were more than offset by reductions in posttest scores in control groups. The outcome of the study was generally negative, as has been true of most previous studies on coaching.

S. O. Roberts and D. Oppenheim
CEEB RDR 66-7, No. 1; RB 66-36

Item and Test Analysis Results for Candidates Tested at the
Free LSAT Administration of February 1967

In order to encourage more Negroes to consider a career in law, a special free administration of LSAT was conducted in February 1967 at a number of colleges having predominantly Negro enrollment. A sufficiently large number of candidates participated to warrant a study of the statistical characteristics of the items and of the separately-timed sections of LSAT, Writing Ability, and General Background for this group. These statistical results were compared with comparable data based on a cross-section sample of regular candidates and on a stratified sample of regular candidates having substantially the same level of scores on each test as the group attending the free administration.

Poorer performance by the free administration candidates than by the regular candidates characterized substantially all the items and the various test sections. The reliability of LSAT, Writing Ability and General Background scores was approximately the same for the free administration sample and the two comparison samples. The free administration candidates tended to answer fewer questions than the regular administration candidates, which works to their disadvantage.

Barbara Pitcher and W. B. Schrader
Unpublished report to the LSAT
Council, May 1968

TEST
PERFORMANCE
(continued)

Special Item Analysis of the Admission Test for Graduate Study
in Business for Negroes

The Consortium for Graduate Study in Business for Negroes was established in 1966 to coordinate programs concerned with increased participation of Negroes in advanced business education. Negro students interested in such education, who take the Admission Test for Graduate Study in Business as part of this program are referred to as Consortium candidates. Distribution of Consortium candidates' scores on ATGSB was matched with that of non-Consortium candidates (all U.S.).

A sample of non-Consortium candidates was selected to match Consortium candidates on total score. It was found that the two groups differed significantly on verbal and quantitative scores, with the Consortium groups scoring higher on verbal. Two additional samples were drawn: one to match the Consortium group on verbal and the other on quantitative.

The test as a whole seemed to be equally reliable for both Consortium and non-Consortium candidates. There was a significant difference in the percent correct between the two groups on 12 verbal and 14 quantitative items and there was a remarkable similarity in choices of the same wrong answers by both groups. Among quantitative items, those involving percentages were significantly more difficult for Consortium candidates.

W. Cowell
ATGSB Special Report (in Press 1969)

THEORIES,
METHODS, AND
TECHNIQUES

Although some reports in this category are not directly concerned with the disadvantaged, they have been included because they deal with theories, methods, and techniques which might be useful in further investigations of the characteristics of the disadvantaged.

Assessment of Disadvantaged Adolescents: A Different Approach to Research and Evaluation Measures

Limitations of available formal instruments for use with culturally deprived subjects are described. In an attempt to overcome some of the claimed defects of some of such measures (cognitive and noncognitive), a battery of measures was specifically constructed, "tailored" for use with disadvantaged groups, in the areas of Job Knowledge, Vocational Aspirations, Vocational Plans, Interest in Vocational Tasks, Attitude Toward Authority, Self-Esteem, Deferred Gratification, Job Seeking and Job Holding Skills, Motivation for Vocational Achievement, and Practical Reasoning.

The measures, designed with minimal verbal content at approximately fifth-grade level, with simple format (one item per page), appropriate pictorial information, and short test length (not more than 30 items in a booklet), were administered to 256 male and female high school dropouts enrolled in a federally funded youth-work training program. Included in the measures was a 15-item Enrollee Rating Scale with questions to answer on his feelings about the program.

Item characteristics, levels of internal consistency, external validity based on rating criteria, construct validity based on factor analysis, and the logic of a number of research findings with the individual measures, presented a pattern of results reasonable enough to warrant continued research application and development of these types of measures for the purpose indicated; however, the measures do not yet possess a formal status that would justify broader applications, e.g. as guidance, placement, or selection instruments.

N. E. Freeberg
RB 69-41

THEORIES,
METHODS, AND
TECHNIQUES
(continued)

Disadvantaged Children and Their First School Experience

A report covering the period February 1968-January 1969 of ETS plans for the Longitudinal Study of Disadvantaged Children, under OEO auspices. Contains an Overview of the Study, summarizing principal features of the study design, an outline of Strategy and Tactics in Conducting Research with the Disadvantaged, and chapters dealing with approaches to measurement and evaluation in the following areas: Children's Cognitive and Perceptual Development; Children's Personal and Social Development; Children's Physical Health and Nutritional Status; The Impact of the Family; The Impact of the Classroom; The Impact of the Teacher; The Impact of the School; The Impact of the Community; The Impact of the Tester. Measurement strategies are summarized, and procedures for sampling, measurement plans, field operations, testing centers, and scheduling are presented. Final chapters deal with Systems Design and Control, and Analysis. A separate appendix is related to measures.

Scarvia Anderson, A. Beaton, W. Emmerich,
and S. Messick
PR 68-4

An Exploratory Study of Student Attitudes in the Primary Grades

The purpose of this exploratory study was to investigate the feasibility of using a structured projective interview to study the attitudes of primary school children toward school and toward teachers. A series of sketches depicting teacher-child or child-child interaction in the classroom were shown to 112 first- and second-graders in 7 schools. The children were asked to tell what led to the pictured situation or what would happen next.

The responses were judged independently by judges in terms of overt content and underlying attitudes revealed by the responses. Items believed to be tapping aspects of the same underlying attitudes generally showed modest but significant correlations with each other and zero correlations with items believed to be unrelated. Responses to items did not differ according to sex, grade, or socioeconomic background. However, children in an urban slum school gave a greater number of responses expressing violence than did children in other schools.

THEORIES,
METHODS, AND
TECHNIQUES
(continued)

Children showed a high degree of responsiveness to the interview with virtually no refusals to respond, although skilled and patient interviewing was required in many cases to obtain complete protocols.

Sandra R. Cohen
RB 65-30

A Feasibility Study of National Assessment: Some Implications for Test Construction and Administration

A study in connection with the variety of items in the National Assessment Item pool, designed to obtain information on 1) the number of possible formats that should be presented to any one individual; 2) the number of subject areas which should be represented in an "item package" (since "tests" were not to be given in specific subject matters, would variety of content confuse the student?); and 3) conditions under which assessment might be conducted, with emphasis on how well teachers would be able to administer items to groups of students.

Low-ability students in low-income areas in eight different communities in rural, suburban, and center-city locations were used for a case-study approach. Items were presented to groups; following group administration, selected students were administered items individually and asked to comment on them.

Some findings: In general, students were not confused either by the number of subjects or variety of format. Only two item-types seemed to generate confusion. One type involved responses in sets; another type involved negative response (least, worst, smallest). Some problems for those administering the tasks were revealed.

Requests for copies should be addressed directly to the author at ETS, Princeton, New Jersey 08540

G. G. Gordon
Paper presented at NCME Convention
Los Angeles, February 1969

THEORIES,
METHODS, AND
TECHNIQUES
(continued)

Factor Stability of a Student Biographical Information Blank
Over Several Grade Levels

A biographical information blank (BIB), administered to students in grades 7, 9, and 11 in 1963 as part of the ETS Growth Study, was analyzed to determine the stability of its factor structure. This was done by deriving a single average factor pattern matrix which was rotated to simple structure and against which factor matrices at each grade level could be compared. Of 11 factors extracted, all but three showed reasonably good stability. Those factors that showed the greatest change, in terms of their presence over the three grade levels, were "General Appreciation of School Courses," "Social Activities," and "High Level Literary Activities."

N. E. Freeberg and D. A. Rock*
RB 68-18

A Method for Comparing the Performance of Different Groups on
the Items in a Test

The purpose of this study was to develop a method which separates the overall differences in test performance of different subsamples of a general population from differences attributable to individual questions,--a method which would provide an estimate of the interaction of items with subsamples. The two-factor analysis of variance design with repeated measures on one factor is demonstrated to be appropriate to the problem if item difficulties are first subjected to the arisen transformation. Application is illustrated using SAT candidates from 3 different subgroups of the total population--Negro candidates from the Southeast, candidates from small town and rural centers in Indiana and Illinois, and candidates from centers in the Bronx, New York.

Carolyn Cardall and W. E. Coffman
RB 64-61

A Moderated Stepwise Prediction System

Describes the development of a computer-based statistical system which is general in nature but which could yield some tentative answers to questions concerning interactions between groups of individuals and their attributes when predicting some criterion of success. The technique is multivariate; that is, complex multiple interactions may be handled simultaneously. Thus, given a sample of individuals with multiple measures on each, including a criterion of success, the system can be used to isolate groups consisting of individuals with common profiles on background or personality variables, which also yield optimal within-group prediction systems. The system could also aid in finding out whether a person's profile based on multivariate

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information dealing with past experiences (e.e., background or demographic measures) can substantially affect the prediction of achievement criteria from normal aptitude measures. Thus one could find and describe types of individuals who 1) either require different attributes for success or 2) have differing patterns of the same attributes yet achieve the same level of success. Methodology is described, along with Grouping on Profiles, Within-Class Regressions, and Intercept Method. (For an application of this method, see The Use of Multiple Moderators in Academic Prediction, page 33 ; A Multiple Moderator Approach to the Identification of Over- and Under-achievers, page 44 ; and The Identification and Utilization of Moderator Effects in Prediction Systems, page 44 .)

D. A. Rock and J. L. Barone*
RM 67-11

The Identification and Utilization of Moderator Effects in Prediction Systems

Traditional linear multiple prediction models assume that a given set of tests predicts with equal accuracy for all members of a heterogeneous population. Evidence suggests that this assumption is sometimes false, that tests may have differential validity for homogeneous subgroups of larger populations. Variables defining such subgroups for which there is differential prediction are called moderators. That is, these variables moderate the nature of the relationship between predictor(s) and criterion. Examples are cited using background and demographic variables to define subgroups for which senior class rank is predicted with differential accuracy by subtests of a standard achievement test. For subgroups defined by other moderators, prediction was more accurate for some of the subgroups but less accurate for others. An implication of this latter finding is that counselors or personnel administrators must be aware that they can predict performance accurately for some subgroups but that for other subgroups they should withhold judgment pending further information.

A general classification procedure, following a development by Tatsuoka, is suggested as a means of combining information from both moderators and predictors into one probability statement.

D. A. Rock
RB 69-32

A Multiple Moderator Approach to the Identification of Over- and Underachievers

This paper reports a study of over- and underachievement of college students, utilizing a computerized multiple moderator technique. The subjects were students at a large southwestern

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university; the predictors were short forms of the SAT and high school rank; and the criterion was first-year grade average. Selected background variables were the potential moderators.

The overachievers were characterized by having average abilities yet coming from backgrounds where the father was highly educated, while the underachievers were observed as having small-town origins and high interest in extracurricular activities.

R. L. Flaugher and D. A. Rock
RB 69-26

STUDIES IN PROGRESS

BACKGROUND FACTORS

Survey of the Academic Progress and Financial Status of Enrolled Students

One of the main questions to be answered by this study is that involving the financing patterns of students from various socioeconomic backgrounds.

J. L. Bowman

Measuring Financial Need

The College Scholarship Service is examining the appropriateness of its procedures for measuring financial need of students from disadvantaged backgrounds. The study will examine the special problems of such students from the economic side and make recommendations for changes in current CSS procedures.

J. L. Bowman

COGNITIVE PROCESSES, DEVELOPMENT, AND FUNCTIONING

Let's Look at Children

Earlier work on this project is described on page 7 under Let's Look at First Graders.

During 1967-68, children from middle- and lower-class neighborhoods were observed and tested. The results of these studies of cognitive performance will be used as a basis for developing additional materials to help preschool and kindergarten teachers make more adequate classroom appraisals of children's learning and abilities.

E. A. Chittenden

EVALUATION OF PROGRAMS

Neighborhood Youth Corps

Phase I of this project is reported on page 17. Phase II will be concerned with the development of criteria for the performance of enrollees in the Neighborhood Youth Corps. A study of background data as predictors for disadvantaged adolescents in a youth work training program will also be conducted.

N. Freeberg

Evaluating Title I Activities in the Chicago Public Schools

A series of studies is being initiated to determine the outcomes of programs initiated by the Chicago Board of Education under funding through E.S.E.A., Title I. Several papers and memoranda will arise from these studies during 1970. Previous work on this project is reported on page 18 .

G. L. Marco

Evaluation of Integration of Evanston District 65 Schools

Evaluation of achievement outcomes of an integration program for the elementary schools in Evanston, Illinois, is being conducted under subcontract from the Rockefeller Foundation. A final report is scheduled for 1971. Previous work on this project is reported on page 17 .

D. P. Norton and J. Hsia

External Educational Accomplishment Audit for ESEA Title VIII (Dropout Prevention) Programs

Educational Testing Service is conducting the external educational accomplishment audit for two Title VIII Dropout Prevention Programs: the Talent Identification and Development Program sponsored by The Dade County (Florida) Board of Public Instruction and the Potential Dropout Recognition and Prevention Program sponsored by The Chautauqua County (New York) Board of Cooperative Educational Services.

The audit, which is required by the United States Office of Education for all Title VIII Programs, is an external assessment of the process, product, and management of the program. Its objectives are to verify the results of local evaluations and to assess the appropriateness of program procedures. The primary methods of accomplishing the audit are on-site observations and examination of program records and reports. The results of the audit are reported to the USOE, the program management, and the general public.

D. W. Seibel

Children's Television Workshop

Special television programs designed to teach preschool children through enjoyable entertainment will be telecast by the Children's Television Workshop (CTW) in a 26-week series of hour-long shows five days a week, beginning in November, 1969. Puppet shows, story readings, animated cartoons, and fast action films are some of the program activities that will be employed to introduce educational concepts and learning skills. The aim of CTW "is to narrow the academic achievement gap between disadvantaged and middle-class children which appears early in school and increases in the higher grades." The project is being funded by government and private agencies.

Consulting services are being provided by ETS to help CTW develop behavioral objectives and formative and summative research procedures. Weekly assessments of the show will be made, and the overall impact of the show will be measured in terms of the objectives of the program.

S. Ball

Evaluation of Verona Plan for Sharing Educational Opportunity

A total of 38 educationally underprivileged youngsters from Newark, most first and second graders, have been attending classes in suburban Verona under the Verona School Board's Plan for Sharing Educational Opportunities. Each day they are bused to Verona, accompanied by a teacher whose task it is to involve herself in any special problems these children may encounter.

ETS, in conjunction with the school boards of Verona and Newark, is conducting a study of the outcomes of the program which will focus on student achievement in reading, arithmetic, and listening; student attitude changes toward racially mixed classes; parent attitudes; and operational problems encountered by teachers during the year.

S. M. Zdep

Follow-Through

Educational Testing Service is working with the Education Development Center to develop broad, more diverse, assessment approaches to evaluate the effects of innovative educational efforts represented by Head Start and Follow Through programs. The educational goals of such programs will provide the frame work for designating the areas of assessment. This project represents a cooperative effort on the part of professional staff at both organizations who are concerned with problems in assessing young children.

E. A. Chittenden

A Study of the Practices, Development, Effect and Administration of the Educational Talent Search

The Educational Talent Search Program of the Office of Education has, since 1966, funded about 100 projects. The primary aim of these projects is to "identify qualified youths of financial or cultural need with an exceptional potential for post-secondary educational training and encourage them to complete secondary school and undertake post-secondary education." ETS has been awarded a contract by OE to gather data from project directors, students, and community leaders as to the effectiveness of the projects with particular emphases on improving the program in future years.

A. Carp and G. Temp

College Success and Low Test Scores

Under a small grant from the U.S. Steel Corporation, three or four institutions with seemingly innovative and successful programs for high risk students will be intensively studied. Efforts will be focused on objectively describing "input, treatments, and outputs" so that some idea of the effectiveness of remedial programs can be determined.

A. Carp

A Pilot Study of Minority Group Students at Highly Selective Institutions

This study will be conducted to evaluate college performance of disadvantaged students who show academic potential and are given appropriate counseling and financial aid. It is anticipated this research will yield information on the difficulties the student has encountered and how he overcame them.

W. S. Hall

PREDICTION

The North Carolina Study of Admission Policy and Practice

As an initial determination of potential racial bias in preadmissions indices (notably SAT scores and high school grades) available to public college admissions officers in North Carolina, this study will examine the predictive validity of these indices, as evidenced through the performance of 1968-69 freshmen, in each of the 16 public institutions of the state. Analysis of covariance will be used to determine the significance of differences between the regressions for white vs. Negro students. Results will be utilized by the sponsoring North Carolina Board of Higher Education for framing a new statement of admissions policy. Later phases of the study will examine the origins, biographical characteristics, and adjustment to college of students who are in the racial minority for particular campuses (traditionally black or white), toward more effective guidance and educational treatment of minority students, and toward easing real and subtle barriers of access to higher education opportunity.

J. A. Davis

RACIAL ATTITUDES

Some Applications of the Market Survey Technique for Institutions of Higher Education

For a small college serving a relatively self-contained geographic area, a "market survey" of all high school seniors was conducted. A biographical inventory was used to obtain information on background, achievement in high school, post high school aspirations, and the images held of area colleges. Among other analyses, the responses of Negro students are being contrasted with those of white students, with preliminary results indicating that (1) Negro students see some traditionally white colleges that proclaim receptivity to their applications to be hostile at worst, cool or uninterested at best, and (2) stereotyped perceptions of traditionally white colleges are more poorly defined and undifferentiated for the Negroes who aspire to enter college.

J. A. Davis

Error-Choice

This study of the measurement of attitudes toward Negroes uses a "disguised, structured" method of measuring attitudes -- the error-choice technique -- in which subjects are asked to respond to a series of apparently factual multiple-choice items concerning desirable and undesirable characteristics. Attitude is thus defined operationally as consistency in estimating the incidence or degree of desirable and undesirable characteristics.

The data will be analyzed to determine the dimensionality of the set of error-choice items and to determine the relationship between a best subset of items and the criterion instruments.

T. S. Barrows

TEST CHARACTERISTICS

Test Bias and the National Teachers Examination

This study is being conducted to insure fairness to disadvantaged students taking the National Teachers Examination. Because large numbers of users in the South and in northern metropolitan areas are testing candidates from the population generally labeled as disadvantaged, the General Education section of the Common Examinations is being studied for bias. Bias is defined as the tendency of items to be more difficult for one population than for another. If the subcultures from which teachers must be recruited can be identified with care, the results of the analysis would indicate clearly (and in what way) it may be possible to construct a test in this general area which will give teachers from all such subcultures an equal opportunity to earn a particular score on the test.

D. M. Medley

Test Bias: Validity of the SAT for Negro and White Students in Integrated Colleges

This study to be carried out in 1969 and 1970 is essentially a repeat of the Cleary study reported on page 37 as RB-66-31. A sample of colleges using the SAT and admitting sizeable numbers of black students will be asked to provide test scores and criterion data. The increased participation of blacks in higher education and possible changes in treatment of minority groups on campus makes it worthwhile to repeat this study in a sample of 10 to 15 colleges.

G. Temp and A. Carp

TEST PERFORMANCE

Student Test-Taking Behavior

The purpose of this study is to: 1) obtain information about student test-taking behavior, 2) examine the relationships between teacher's evaluations and external observers' evaluations are influenced by factors

such as student socioeconomic level, class size, age and grade level, test performance, etc.

The administration of the tests included the presentation of all test items by paced tape. Among the comments offered by teachers and observers was one indicating that the low SES students who had reading and language problems were helped by hearing, as well as seeing, the exercises.

D. Seibel, Scarvia Anderson, and Arleen Barron

THEORIES, METHODS, AND TECHNIQUES

Social Stratification

This study has two aims: a) to identify the dimensions of social stratification for both Negroes and whites, and the indexes that best reflect these dimensions, and b) to determine whether distinct social classes exist and, if so, whether they can be empirically differentiated. Although a vast amount of research has been devoted to the identification and development of objective indexes of social stratification, such as education and occupation, this research has been based almost entirely on samples of whites.

A comprehensive, highly structured interview schedule was prepared to obtain information that directly reflects the major aspects of social stratification or important correlates of it. The schedule was used in household interviews with representative samples of Negro and white household heads in a typical northern city.

L. J. Stricker

Critical Issues in Research Related to Disadvantaged Children

The proceedings of six seminars on critical issues in research related to disadvantaged children from birth through third grade will be contained in this report. The topics of the individual seminars and the seminar editors are: Motivation, Urie Bronfenbrenner; The Teacher and Classroom Management, Martha Rashid; Head Start Populations, Myles Friedman; Health and Nutrition in Early Childhood, A. Frederick North, Jr.; Intervention in Family Life, Robert Hess; and The Teacher in Intervention Programs, Irving Sigel.

Copies will be available from the Head Start Office, 1111 18th Street, NW., Washington, D.C. by the late fall of 1969.

Ruth Ekstrom

APPENDIX

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