

INSTITUTE OF
BEHAVIORAL RESEARCH - IBR

TEXAS CHRISTIAN UNIVERSITY

ANNUAL REPORT
1978

personality social psychology environmental psychology
psychophysiology human ecology epidemiology field surveys
population research family planning research drug abuse
and alcoholism research evaluation of treatment for drug
abuse and alcoholism organizational research personnel
research management studies behavior modification social
and health program evaluation multivariate methods in
behavioral research aviation and aerospace psychology

GOALS

The IBR is a university-based research and consulting organization dedicated to the advancement of scientific knowledge and to the application of the systematic knowledge and methods of the behavioral sciences to human affairs, through laboratory and field research, graduate education, and scientific publication. These goals implement a major principle endorsed by Texas Christian University, that organized research is one of its principal functions, having value both to society and to the educational program of the University.

ORGANIZATIONAL
STATUS

The IBR was established formally in 1962 as an independent research unit of the University, to provide needed administration and programmatic direction for the developing of research programs in the behavioral sciences. Since it was founded it has experienced steady growth in staff, budget, and program scope. While providing research opportunities for students and faculty, it has also acquired a full-time staff of research scientists and specialists. In order to recognize the status of these IBR scientific staff members, the University, in 1972, authorized the IBR to include in its budget a number of ranked faculty positions and provided procedures for these faculty members also to serve as teachers and as members of the graduate faculty.

PROGRAM

The IBR research program is supported principally by research grants and contracts, from Federal agencies and industry, in the areas of personality, social and environmental psychology, psychophysiology, epidemiology and human ecology, organizational and personnel research, social and health program evaluation, and population research. Currently the largest single programs involve research in the areas of drug abuse epidemiology and treatment evaluation and organizational behavior.

FACILITIES

Located on the East Campus of Texas Christian University, the IBR occupies four buildings with 15,000 square feet of office and laboratory space. Special features include the IBR LIBRARY with over 3,500 books, 50 journals, and an extensive file of Air Force, Army, Navy, NASA and other technical report series, the document and computer files of the DRUG ABUSE EPIDEMIOLOGY DATA CENTER, a comprehensive COMPUTER PROGRAM LIBRARY, and extensive DOCUMENT STORAGE facilities. The IBR utilizes the Sigma 9 computer system at the TCU Computer Center, both in batch mode and in real time, by means of remote terminals.

PUBLICATIONS

IBR reports, a technical report series based on staff and student research completed under grants, contracts, and independent study, are distributed to a regular mailing list and in most cases are condensed for formal publication. TCU PRESS-BEHAVIORAL SCIENCE MONOGRAPH SERIES, founded in 1971, published irregularly as single volumes, includes substantive studies as well as methodological and theoretical contributions to the behavioral sciences. The IBR also publishes MULTIVARIATE BEHAVIORAL RESEARCH, a quarterly journal of the Society for Multivariate Experimental Psychology.

IBR POLICIES

Information for IBR Fellows

A major feature of the wide-ranging program of the Institute of Behavioral Research (IBR) is its emphasis on graduate education in conjunction with the various studies in progress. Some of the IBR faculty teach formal courses in the psychology, sociology, and business programs at Texas Christian University, but all assume research training responsibilities in conjunction with ongoing funded research projects. Within this framework, major emphasis is placed on the development of research skills in students, using an apprenticeship model -- as the student progresses from the first to the fourth year of training, the level of responsibility increases in terms of research planning, conducting data analyses, and writing research reports.

The research training program of the IBR is based on high standards of performance that apply to academic work as well as research development. Progress of each student is reviewed twice a year (at the end of the Fall and Spring Semesters) by the IBR Fellow Committee and includes review of formal grade reports as well as written evaluations submitted by IBR Faculty and staff supervisors. The Committee makes recommendations to the Director of the IBR and to the student involved as special action or information is needed. These recommendations involve academic progress, development of research skills, and amounts of fellowship stipends, as described below.

Academic Progress. Although the principal involvement of the IBR with Research Fellows is often viewed in terms of training in research methodology and application, academic counseling and supervision of students by IBR Faculty is an essential part of the training program and is therefore emphasized. Academic counseling with faculty supervisors is important for addressing student career objectives and insuring academic preparation for IBR research assignments. For this reason, each student is expected to consult with his research supervisor prior to enrolling in courses. In addition to appropriate course selections (generally 9 graduate credit hours per semester), grade reports are expected to average B+ or above. Continuation of an IBR Fellowship is contingent in part upon satisfactory academic work and definite progress toward an advanced degree.

Development of Research Skills. The IBR research training program involves a combination of formal coursework and work experience generally on funded research projects. Within the limitations of the nature and requirements of research projects in progress at any given time, research assignments are made on a basis that seeks to optimize the match between student interests and abilities. As experience and research capabilities

grow, student assignments are adjusted accordingly. Efforts are made to introduce students to all phases of research, from problem definition, planning and design to data gathering, management, and analysis, to the writing and ultimate publication of research reports.

Evaluations are normally requested semi-annually by the IBR Fellow Committee to be provided by each student's immediate supervisor(s). These evaluations are open to the student and each supervisor is encouraged to review his or her evaluation with the student. Together with the evaluations based on academic progress, this information is used by the Committee for recommendations concerning continuation or special provisions regarding fellowships.

Amount of Fellowship Stipends. In 1978, IBR Fellowship stipends ranged from \$300 to \$500 per month, plus cost of tuition (Costs of student fees were not included). The following schedule was adopted to determine the amount of stipends paid to students. Stipend increments became effective when the qualifications were met for each successive level of graduate training. Fellowships are limited to two years for a Masters degree and four years for the Ph.D.

<u>Level</u>	<u>Qualifications</u>	<u>Stipend</u>
1st year	Beginning or first year graduate student with less than 15 graduate credit hours.	\$300
2nd year	Completion of a research Masters degree, or 18 or more graduate credit hours with relevant research experience. Must have completed graduate level coursework or its equivalent in Statistics and Experimental Design. Student must demonstrate satisfactory progress toward either the Masters or Ph.D. degree.	\$375
3rd year	Completion of two years of graduate study toward the Ph.D. degree. The student will be expected to have completed the Masters degree (or its equivalent or 30 hours of graduate study). This includes successful completion of preliminary evaluations in the relevant academic department.	\$425

4th Year	Fourth or final year of graduate study. The student will have passed his qualifying examinations and be admitted to candidacy for the Ph.D. degree.	\$500.
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The current IBR Fellow Committee consists of the following members:

Dr. L.R. James
Dr. G.W. Joe
Dr. D.D. Simpson, Chairman.

Faculty Promotion Policy

1. The IBR is a university-based research institute which, by policy, includes students as members of its research staff, and regards training and development of research personnel as part of its mission of contributing to knowledge and understanding of human behavior in modern society. As a consequence, IBR faculty members are expected to be scholars, scientists, writers, lecturers, consultants, and teachers, with substantive as well as methodological expertise in the behavioral sciences. IBR faculty promotion policy is subject to the general policies of Texas Christian University.

2. At the entry level (Assistant Professor), these qualities are judged by perusal of educational records, research reports and publications, letters of recommendation, and interviews in which the entire faculty participate and vote. For evidence of growth, the faculty use various sources of information, as follows:

research: proposals prepared and funded, seminar reports, technical reports, publications accepted by reputable journals, invitations to lecture or report, published reviews, requests for advice and consultation, and the like;

scholarship: theoretical and research papers, references to and citation of work, reputation among colleagues, peers, and students, comments on and reviews of published work, influence on the thought, research, and practices of an area or field, invitations to present colloquia, lectures, and to participate in symposia, and the like;

teaching: quality of students attracted and taught by the professor; scope, level, and reputation of courses, innovative methods and content, and special projects. IBR faculty members are all expected to qualify as members of the graduate faculty and to teach in a preceptor relationship with students, who function as graduate assistants, and to direct independent research as well as dissertations and theses.

Individual, one-to-one teaching is one of the most important teaching functions for all IBR faculty, although some faculty members have contracts to teach formal courses in one or another department or school.

3. As academicians and professionals and as members of the TCU and IBR faculty communities, IBR faculty members are expected to assume responsibility for participating in professional and service activities to facilitate institutional operations and relationships with the lay and professional constituencies to which they and the University have allegiances. This is a means of enhancing individual and institutional influence and also of promoting the goals of the institution through such individual effort. As a result, IBR faculty are expected to participate as members of faculty committees, to attend University functions as representatives of the IBR, to provide speaking, advisory, and consulting services in the Fort Worth community, to participate in the meetings of the appropriate regional and national associations, to present papers, and to communicate with scholars, scientists, and others in matters related to their academic and professional roles.

4. In evaluating faculty members' performance, evidence of growth in productivity and influence is taken into consideration. Influence includes service activities as well as scholarly and scientific work. No one is expected to excel in all aspects equally, and indeed the responsibilities of IBR faculty members vary to an extent that they differ in opportunities to excel in all aspects during any particular year. However, taking duties, opportunities, and particular situations fully into account, recommendations for promotion to Associate Professor will generally reflect strong evidence of growth from the entry level to a senior level of performance such that the individual can be considered as definitely launched on a significant career with full expectation that interests, areas of specialization and special expertise, and proficiencies demonstrated during the first four or five post-doctoral years will materialize into full fruition, recognition, and accomplishment. Recommendations for Full Professor will be made when the evidence indicates that such career expectations have been largely realized.

IBR FACULTY

S.B. Sells	Research Professor and Director Ph.D. (Psychology). Columbia University, 1936 Interactional theory, environmental psychology, personality and social, stress, organizational behavior, industrial and aerospace psychology, drug abuse and alcoholism treatment evaluation and epidemiology, multivariate research
Robert G. Demaree	Professor of Psychology and Professor in the IBR Ph.D. (Psychology), University of Illinois 1950 Drug abuse evaluation research, drug abuse and health problems, epidemiology, personality research, psychometrics, measurement theory, mathematical modeling, computer simulation, multivariate and mathematical psychology
Steven G. Cole	Associate Professor of Psychology and Associate Professor in the IBR Ph.D. (Psychology), Michigan State University, 1970 Social psychology, conflict and conflict resolution, drug abuse treatment taxonomy, alcoholism treatment research, family planning and population research, community psychology
Lawrence R. James	Associate Professor in the IBR Ph.D. (Psychology) University of Utah, 1970 Industrial and organizational psychology, multivariate methods, measurement theory, causal analysis, leadership, motivation, climate and organizational development
George W. Joe	Associate Professor in the IBR Ed.D. (Research Design) University of Georgia, 1969 Multivariate and mathematical psychology, measurement theory, drug abuse treatment evaluation research, community health epidemiology and evaluation research

- D. Dwayne Simpson Associate Professor in the IBR
Ph.D. (Psychology) Texas Christian University
1970
Drug abuse treatment evaluation research, design, taxonomy of drug abuse patterns, post-treatment followup studies, management information systems, psychophysiology, illness behavior, respiration, smoking
- B. Krishna Singh Associate Professor in the IBR
Ph.D. (Sociology) University of Kentucky, 1970
Demographic theory and research, mathematical modeling and causal analysis, community dynamics, drug abuse epidemiology and community context effects, social change
- Roderick Crandall Associate Professor in the IBR
Ph.D. (Psychology) University of Michigan 1974
Group and interpersonal phenomena, applied social psychology, leisure, environment, quality of life and organizations, professional and methodological issues - measurement, reviewing procedures and ethics
- LaVerne D. Knezek Assistant Professor in the IBR
Ph.D. (Education and Business Administration) North Texas State University
1972
Epidemiology of drug abuse, computerized information systems, educational planning research, personnel management, regional planning, career planning
- Jack R. Greener Assistant Professor in the IBR
Ph.D. (Psychology) University of Houston 1975
Industrial and organizational psychology, personnel selection, measurement theory, computer simulation, leadership, motivation

RESEARCH STAFF

John Hater, Ph.D.	Research Psychologist
Richard Hudiburg, Ph.D.	Research Analyst
Evan D. Stackfleth, Ph.D.	Research Psychologist
Christopher Hornick, M.A.*	Research Associate
L. James Savage, M.A.*	Research Psychologist
David Arno, B.A.*	Research Assistant
Elizabeth Cole, M.A.	Research Associate
John Garland*	Research Analyst
Michael R. Lloyd, B.A.	Programmer
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Bennett Fletcher, M.A.*	Graduate Research Fellow
Thomas Hilton, M.S.*	Graduate Research Fellow
Alvin Jones, M.A.*	Graduate Research Fellow
Paul Nail, M.S.*	Graduate Research Fellow
Frank Shanahan, B.A.*	Graduate Research Fellow

* Doctoral Candidate

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	IBR Librarian
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Keith Helfrich	Programmer
J. Michael Redmond	Programmer Analyst
Donald S. Willis, M.M.S.	Systems Analyst

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* Doctoral Candidate

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FUNDED RESEARCH 1978

SUBSTANCE ABUSE

<u>National Institute on Drug Abuse (NIDA)</u>	<u>1978 Expenditures</u>
<u>Grants</u>	
Post-treatment Followup of DARP Cohorts 1,2, and 3. Grant No. 1 H81-DA-01598, Initiated August, 1974 Total award. \$3,408,037.	\$776,660.
Social Factors and Drug Use in an Urban Population. Grant No. DA 01765, Initiated September, 1977. Total award. \$508,760.	177,450.
Drug Abuse Epidemiology Data Center (DAEDAC). Grant No. 8 R01-DA-01400, Initiated April, 1975. Total award. \$1,170,428.	303,046.
Treatment for Drug Abuse: Use of an Integrating Model. Grant No. DA 01931, Initiated July, 1977. Total award. \$315,381.	182,809.
<u>Contracts</u>	
Secondary Data Analysis of the DAEDAC Data Base. Contract No. 271-78-1304 (5-29-78 to 5-31-79) Total award. \$53,475.	21,490.
DARP Data Book. Cohort 1-2 Post-DARP Outcomes. Contract No. 271-77-1229 (9-30-77 to 12-31-78) Total award. \$56,806.	56,319.
CODAP and NDATUS Assessment Project (CANAP). Contract No. 271-78-5701 (9-29-78 to 9-28-79) Total award. \$198,966.	30,508.

National Institute of Alcohol Abuse and Alcoholism (NIAAA)

<u>Contract</u>	
Assessment of Combined Treatment for Alcohol and Drug Abuse Clients. Contract No. ADM 281-76-0024 (6-29-76 to 3-31-79) Total award. \$117,988.	16,500.

INDUSTRIAL AND ORGANIZATIONAL RESEARCH

Office of Naval Research

<u>Contract</u>	
Organizational Characteristics and Personnel Effectiveness in the Framework of Social System Analysis. Contract No. N001-72-0179-0001 (1-1-78 to 12-31-78) Total award. \$77,000.	74,511.

Federal Aviation Administration

<u>Contract</u>	
Identification of Environmental Factors Associated with Retention and Success in the Air Traffic Control Specialist Training Program. Contract No. LGR-8-0262 (9-19-78 to 5-18-79) Total award. \$55,900.	8,047.

	<u>1978 Expenditures</u>
<u>Airline Pilot Selection Research</u>	
American Airlines (Continuing, since Jan. 1965)	\$ 52,577.
Trans World Airlines (Continuing, since Sept. 1978)	14,229.
Aerospace Medical Associates (Texas International Airlines) (Continuing, since March, 1978)	7,442.
 <u>General Dynamics, Inc.</u>	
Comparison of Side-by-Side vs. Tandem Seating Arrangements in Primary Trainer Aircraft. An opinion study.	2,832.
 <u>City of Fort Worth, Fire Department</u>	
Development of Selection Tests for Entry-Level Firefighters. (Initiated April, 1977).	6,522.
Total.	\$1,730,942.

IBR RESEARCH PROGRAM - 1978

SUBSTANCE ABUSE GRANTS - NIDA

Post-treatment Followup Study of DARP Cohorts 1, 2, and 3.
Grant 1 H81 - DA 01598, National Institute of Drug Abuse
(NIDA)

Initiated 1974. Total award. \$3,401,189. (1978 expenditure - \$776,660.)

Investigators. Dr. Simpson, Mr. Savage, Mr. Lloyd, Dr. Demaree, Dr. Joe, Dr. Singh.

DARP is an acronym for the initial letters of the Drug Abuse Reporting Program, employed under predecessor contracts between 1969 and 1974 to collect longitudinal, prospective data on clients admitted to federally supported drug treatment centers in order to establish a data base for the evaluation of treatment effectiveness. The total file includes admission (background and baseline) information and bimonthly status (treatment received and outcome) reports on approximately 44,000 clients at 52 widely dispersed centers throughout the United States and in Puerto Rico. These were divided, for purposes of the research, into three admission cohorts (1. 1969-1971, 2. 1971-1972, and 3. 1972-1973). Previous reports have described research through 1977, involving development of the data files, evaluation of the four treatment modalities included (methadone maintenance - MM, therapeutic community - TC, outpatient drug-free - DF, and detoxification - DT), and correlative studies, based mainly on outcomes during the period that clients were in treatment, as well as the initial analyses of post-DARP followup data for samples from cohorts 1 and 2.

During 1978 further work was accomplished on the analysis of data from the Cohort 1-2 followup study and field work was initiated for the collection of followup data for Cohort 3.

Cohorts 1 and 2. Two landmark studies, one by Simpson, Savage, Lloyd, and Sells, and the other by Sells, Demaree, and Hornick, representing the formal post-treatment evaluation of the Cohort 1-2 DARP followup sample were completed in 1978. These studies exemplified the DARP research strategy of analyzing the same data set by widely different methods in order to test the robustness of the results. It is noteworthy that the degree of agreement found strongly supported the credibility of the DARP research program.

The methodological strategies of these two studies are summarized as follows: (1) Both studies were concerned with assessment of the same post-DARP outcomes (E, employment, O, opioid use, N, nonopioid use, A, alcohol consumption,

C, criminality, and T, return to treatment), for the same sample of black and white male DARP clients, for four treatments exemplified in DARP (MM, TC, DF, and DT), as well as an "intake-only", no-treatment, comparison group. and both addressed the issue of comparative effectiveness, taking account of population and program differences; (2) Simpson et al. used outcomes for the first year postDARP and computed analyses for each outcome separately, while Sells et al. used outcomes for the first three years post-DARP and analyzed results in relation to a composite criterion, based on profiles of the six outcome measures, which enabled classification of the sample into 11 outcome groups scaled according to favorableness of outcome; (3) Simpson et al. adjusted for pre-DARP population differences by analysis of covariance, while Sells et al. computed expected values for outcome groups based on predictions using discriminant weights of the pre-DARP variables derived from a discriminant function analysis of the predictors in relation to the outcome groups in the total sample; the adjustment for population differences involved comparison of actual with expected percentages in each outcome group for each treatment. In both studies, very favorable results were obtained for MM and TC while the DT and DARP intake-only comparison groups showed very unfavorable results. The DF results were favorable for nonaddicts (in the Sells et al. study).

Both studies were published by NIDA as Services Research Monographs and were summarized in a report published in a New York Academy of Sciences Symposium (Sells, Demaree, Simpson, and Joe, 1978). A study by Savage and Simpson (1978) demonstrated that the results for black and white males held substantially for Mexican-American and Puerto Rican males in MM. Simpson and Sells (1978) published a special study of the DARP followup results for youth, age 19 and under, in Cohorts 1 and 2.

Other studies of the DARP data completed in 1978 covered a wide range of topics: analysis of drug treatment histories and their relation to post-DARP outcomes, by Joe and Gent; studies of recidivism, based on the followup data, by Sells, Demaree, Simpson, Joe, and Lloyd; studies of the implications of return to treatment, by Simpson and Savage; a study of time in treatment as a predictor of post-DARP outcomes, by Simpson, which showed that clients in MM, TC, and DF who had been in treatment less than three months did as poorly as those in DT and the intake-only comparison group, while those who remained over three months had favorable outcomes in proportion to their length of stay in treatment; a study of post-DARP alcohol use in relation to illicit drug use, by Simpson and Lloyd; and of marijuana use, by Joe and Hudiburg.

Cohort 3. Authorization to proceed with the Cohort 3 followup study was effective August 1, 1977. The sample was selected in 1977, but much time and effort was expended up to May, 1978 in obtaining the participation of the 26 treatment agencies, in 22 cities, that were included in the sample. Because of increasingly stringent state and local laws and regulations concerning confidentiality of drug treatment records, it was necessary to make many presentations to government organizations, governing boards, research committees, and other individuals and groups. This was required in order to persuade the persons in charge to allow the clinics selected to disclose the identifying information and locator information on clients selected to the contractors selected by IBR for the field interviewing (the National Opinion Research Center, which also did the Cohort 1-2 interviewing, for 23 of the 26 agencies, the APT foundation at Yale University, which was responsible for two Connecticut agencies in Cohorts 1 and 2, for the same agencies, and the Eagleville Hospital, for its clients).

The Cohort 3 sample included an increased number of females, compared to the previous cohorts, but was restricted to black and white clients, male and female, in the four treatment groups (MM, TC, DF, and DT) studied previously (plus the intake-only comparison group). These were the only client groups represented across all four treatments; Mexican-American and Puerto Rican clients could not be sampled consistently for this study. The final sample included approximately 2,300 clients from 26 agencies in 22 cities.

The first quarter of 1978 also involved completion of the interview schedule and extensive field testing, in Fort Worth and Chicago. The training session for NORC interviewers was held in New York late in April and field interviewing got under way immediately after. The interviewing phase lasted through 1978 and well into 1979. Completed interviews were received and edited by IBR staff as they became available.

During 1978, Dr. Sells presented invited papers based on the DARP research at the 13th Annual Conference of the Canadian Addictions Foundation, in Calgary, and at the NIDA International Seminar on Drug Dependence, in Washington. Dr. Simpson presented papers at the American Psychological Association, in Toronto and at the National Drug Abuse Conference, in Seattle (in collaboration with L.J. Savage, M.R. Lloyd, and S.B. Sells). At the Seattle meeting, Dr. Sells was named recipient of the Pacesetter Award of the National Institute on Drug Abuse.

Social-Demographic Factors and the Prevalence of Drug Abuse
in an Urban Population.

Grant No. DA01675. National Institute on Drug Abuse (NIDA) Initiated 1977. Total award. \$508,760. (1978 expenditure - \$177,450.)

Investigators. Dr. Demaree, Dr. Hudiburg, Dr. Stackfleth, Ms. Neman, Mr. Fletcher, Ms. Olson.

The purpose of this study is to develop procedures for estimation of drug use prevalence in urban settings, based on sociodemographic data and selected indicators. The research involves sociodemographic descriptions and indicator rates for census tracts (and neighborhood areas) as predictors and prevalence estimates derived from a school survey and a household survey in the city of Dallas, as dependent variables.

School survey. This survey was carried out as scheduled, but the household survey was postponed as a result of a cut in the first-year funds. This cut was restored in December, 1978 and plans developed earlier were implemented immediately. The school survey utilized an anonymous questionnaire covering use of tobacco, hallucinogens, amphetamines and stimulants, cocaine, alcohol, inhalants, opioids, marijuana, barbituates and other sedatives, and a fictitious drug, with five categories of frequency of use during the past year (never, once or twice, three to nine times, ten to 49 times, and 50 or more times). An innovative feature of this instrument was the inclusion, on the reverse side, of a map by means of which respondents could indicate their neighborhood of residence without reporting their specific addresses. This was administered to all students in attendance in grades 7 to 12 in public and private schools. The total number of completed survey forms was 44,521, of which c. 3000 were from private schools. These represented 79% of the average daily attendance for the six-week period during which the survey forms were administered in different schools.

The school survey data were processed by optical scanning methods and analyzed for rates by drug, sex, and grade by residential areas. A technical report was scheduled for the Spring of 1979, by Neman, Demaree, and Stackfleth.

Sociodemographic analyses. To identify and define measures of the social, economic, and demographic dimensions which characterize residential areas, a factor analysis was performed of 36 variables based on 1970 Census data for which six factors were defined with brief labels as follows: singles/renters vs. families; young mobile families vs. older established households; working mothers of lower socioeconomic status; innercity disadvantaged; elderly females living alone; and, Mexican-American population. Upon fitting the 1974-78 data to the 1970 structure, a close

match was obtained. The similarly defined factors for the two time periods have proven to be highly advantageous for the analysis of changes over time in the sociodemographic profiles of census tracts, as well as for the formation of homogeneous clusters of tracts. A report of the analyses described is in preparation.

The results of a preliminary analysis of sociodemographic factors as predictors of drug use by school attending youth were presented in a paper by Demaree, Hudiburg, and Fletcher at a meeting of the Society of Multivariate Experimental Psychology in November, 1978. These analyses will be the topic of a separate report. A later report will present an elaboration of the statistical rationale and interpretative value of the approach taken.

Indicator data. A wide variety of drug, health, and social indicators was acquired from local agencies in Dallas. With few exceptions these data were available by age, sex, ethnic group, occupational or role status, and residential area for a period of several prior years in addition to the 1978 calendar year. The drug indicators include arrests, overdose deaths, serum hepatitis, admissions to treatment, and hospital emergency room treatments. All these indicators were available for the 1973-78 period, except for emergency treatments; data for the latter were collected for a one-year period starting in July, 1978. The health and social indicators include data on morbidity and mortality, arrests, juvenile delinquency, child welfare, public assistance, and mental health.

Household sample survey. The importance of this survey, along with the already completed school survey, is that it will enable estimates to be made of the prevalence of drug use by the adult and youth (12-17 years of age) populations of particular residential areas. These estimates, in turn, will serve as criteria for prediction studies in which the independent measures will be the sociodemographic measures and the drug, health, and social indicators.

The sampling plan for the household survey calls for drug questionnaires to be completed by a total of 4,000 adults in as many households drawn from 45 of the census. In each household sampled, drug questionnaires will also be sought from all youth, 12-17 years of age. It is estimated that 1,400 youth questionnaires will be completed. In conjunction with the questionnaires, interviews will be conducted for a sample of 400 adults and a like number of youth. With respect to the latter, priority will be given to interviews with youth who are not attending school.

The questionnaires and interview schedules for youth and adults have been planned in detail, and will be finalized in consultation with the firm selected as a subcontractor to conduct the household survey.

The major data analyses. Separate prevalence estimates will be constructed for the adult and youth portions of the population in each of the 46 census tracts covered by the household survey. These estimates will then be used as criteria in prediction studies (regression analyses) involving the sociodemographic and indicator variables.

To estimate the prevalence in neighborhoods not covered by the household survey, regression or synthetic estimation techniques will be employed. For the youth estimates, reliance will be placed on formulas which take school attendance status into account and draw upon the school survey data and sociodemographic profiles as predictor variables.

Although the major analyses will be focused on the prediction of the neighborhood prevalence of drug use from sociodemographic factors and a set of drug, health, and social indicators, the wealth of data acquired in the course of this research will enable the investigation of numerous significant issues in the area of drug epidemiology.

Drug Abuse Epidemiology Data Center (DAEDAC)

Grant No. 8 R01-DA-01400, National Institute on Drug Abuse (NIDA)

Initiated 1975. Total award. \$1,170,428. (1978 expenditure - \$303,046.)

Investigators. Dr. Knezek, Marianne Babitch, Guelma Hopkins, Audrey Vanderhoof.

DAEDAC is a research and informational archive created for the purposes of: (1) preservation of original data of surveys, research studies, and record files that have utility for analyses relevant to the understanding of the initiation, continuation, discontinuation of use and associated problems in the use and abuse of illicit drugs; (2) compilation of a file of the significant research literature in this area; (3) acquisition, classification, coding for retrieval, and maintenance in separate computer files, of significant original data sets, with associated documentation, and research literature; (4) provision of data sets to members of the research community for further, secondary research and analysis; and (5) provision of research and information reports, based on staff analysis of file holdings, to NIDA, state and local governments, university groups, and other persons and organizations, charging only the marginal costs of work involved. All original data sets in the DAEDAC files are screened carefully prior to acceptance in the computer file to assure that names, addresses, and other personal identification of subjects have been removed and that the anonymity of persons whose records are included is protected.

DAEDAC is an exemplification of the trend in recent years to establish research archives in important areas of human affairs and knowledge in order to maximize the research and informational potential of data collected and to support further valuable research for which the data are suited. Such research includes studies reaching across individual data sets, enabling analyses of trends over time, comparison of different population samples, regions, and the like, secondary research investigating problems that the data can address that were not studied by the original authors, and studies combining samples from different data sets that enable investigation of problems that the component sets were not appropriate to analyze. By supporting this activity, NIDA has enabled the creation of a data resource that has served its own research and informational needs and also provided a source of data that has been called upon increasingly by university, government, and other organizations concerned with significant informational needs in the drug abuse area. Because of the innovative coding and retrieval systems developed by the DAEDAC staff, data maintenance and retrieval procedures provide rapid response, comprehensive and accurate statistical and summary information, and authoritative coverage of a wide range of topics.

In 1978 NIDA decided for administrative reasons to convert DAEDAC from a grant to a contract and 1978 was the last year of the grant. Negotiation of the contract was scheduled to take place at the expiration of the grant period.

Because of the impressive document file compiled by DAEDAC and the supporting research library of IBR, related to its major drug abuse research, the IBR was notified of its selection to receive the library of the Drug Abuse Council which was preparing to close out its operations in the Spring of 1979. This library is considered one of the most comprehensive collections of literature on drug abuse in existence.

During 1978 over 1200 publications were acquired and assessed for suitability to be included in the DAEDAC literature file by the IBR Faculty-Staff Review Committee and 1000 studies were entered into this file. Twenty-four original data sets were also acquired for the Original Data File. DAEDAC distributed three issues of the DAEDAC Database, an informational newsletter, which by the end of 1978 was mailed to over 5500 subscribers. This newsletter was highly instrumental in informing DAEDAC users of the holdings and services available and was responsible for a substantial number of data and information requests as well as the contribution of original data files. As a result of numerous requests for information on female drug users, DAEDAC released a published search, entitled Women and Drugs, which has had a continuing sale.

In May, 1978 NIDA approved a service contract, described separately, under contracts, to enable DAEDAC to respond to informational requests from the NIDA staff, without the necessity of negotiating a separate purchase order for each one, as required by the grant funding mechanism. The convenience and successful utilization of this contract was one of the reasons for the decision to convert the overall funding to a contract in which these services would be included.

During 1978, a paper by Dr. Singh, Dr. Knezek, and Dr. Adams (Sociology) on legalization of marijuana was accepted for publication in the Journal of Drug Issues. Papers were presented at a number of important meetings: Mrs. Babitch, National Meeting of Substance Abuse Libraries, in Houston; Dr. Knezek and Mrs. Babitch, International Association for Social Science Information Services and Technology, World Congress of Sociology, Uppsala, Sweden; Drs. Singh, Knezek, and Adams, Society for the Study of Social Problems, San Francisco; Mrs. Vanderhoof, Dr. Knezek, and Mrs. Babitch, National Conference on Drug Abuse, Seattle; and Drs. Sells and Knezek, with Mr. Matthews, at NIDA. Important visitors to IBR and DAEDAC included Betty Garland, Head of the Non-Medical Use of Drugs Directorate, Health and Welfare, Ottawa, Canada, Peter Goldberg, Drug Abuse Council, Karl-Heinz Reuband, Ph.D., Cologne, Germany, Lloyd Johnston, Ph.D., Survey Research Center, University of Michigan and a member of the DAEDAC Advisory Committee, Yip Peng Low, Principal, Drug Rehabilitation Center, Kuala Khuba Bharu, Malaysia (Sponsored by the United Nations and the NIDA International Division), John O'Donnell, Ph.D., Professor of Sociology, University of Kentucky, and John C. Ball, Ph.D., Professor of Sociology, Temple University, a consultant to IBR and member of the DAEDAC Advisory Committee.

Treatment for Drug Abuse. Use of an Integrating Model.
Grant No. DA 01931. National Institute on Drug Abuse (NIDA)
Initiated July, 1977. Total award. \$315,381. (1978 expenditure - \$182,809.)

Investigators. Dr. James, Dr. Crandall, Dr. Hater, Mr. Bruni, Mr. Hilton, Ms. Cole, Dr. Watterson.

The purpose of this study, which reflects a blend of IBR expertise in organizational research and in treatment evaluation research in the drug abuse area, is to view a treatment clinic as an organization and evaluate the effects of psychological and organizational climate on treatment staff members and clients in the framework of a theoretical model of organizational functioning. The theoretical model was developed and tested in prior research on military and civilian-industrial organizations and is based on individual-environment interaction theory. The specific focus of the study

is on the impact of different psychological and organizational climates on the generality of conclusions concerning the effects of staff attitudes and behavior on the treatment motivation and outcomes in treatment of clients.

The instrumentation, initial recruitment of participating methadone maintenance and outpatient drug-free clinics for the study sample, and selection and training of field staff were completed in 1977. The final sample consisted of 67 treatment units in eight widely separated cities in the United States, of which 35 were methadone maintenance programs and 32, outpatient drug-free. Data were collected by interview, questionnaire, rating-scale, and observation of ongoing activities. The final data set was based on interviews with 19 agency heads, observational ratings at 63 treatment units, 116 treatment classification checklists and 116 supervisor questionnaires, 317 treatment staff (mainly counselor) questionnaires, 63 counselor interviews, outcome ratings of 818 clients by their respective counselors, and 818 client questionnaires. The field work was completed at midyear.

The remainder of the year was a period of data management, data processing, and data reduction, in which the interview protocols, observation and rating forms, and questionnaires were edited, coded, scored, entered into computer files, scaled, refined, factor analyzed, and re-grouped on research tapes in preparation for the analytic phases, scheduled to begin early in 1979. During this period, literature reviews on selected topics were conducted and theoretical work proceeded on the models to be utilized in the final stages of the research.

SUBSTANCE ABUSE CONTRACTS - NIDA

Secondary Data Analysis of the DAEDAC Data Base.

Contract No. 271-78-1304 (5-29-78 to 5-31-79)

Total award. \$53,475. (1978 expenditure - \$21,490.)

Investigators. Dr. Knezek, DAEDAC staff, IBR drug research staff.

Under the grant funding, DAEDAC could not perform any work requested by NIDA, as for any other user of DAEDAC information services, unless there was a specific mechanism for reimbursement of marginal costs of the services. In the case of NIDA, a federal agency, this required renegotiation of a specific purchase order for each assigned task. The result was that many NIDA staff members found the procedure unduly complicated and needed services were frequently not requested. In May, 1978, after considerable study, a service contract was granted to IBR that provided arrangements for DAEDAC services to be provided to NIDA staff members with

only minimum formality. The contract provided a single channel within NIDA for communication on service requests that worked reasonably efficiently. Shortly after the contract was let, Dr. Sells, Dr. Knezek, and Mr. Matthews made a presentation to the NIDA staff and this was followed by a series of conferences with groups within each of the NIDA divisions. By the end of 1978 the DAEDAC workload on NIDA-originated information, retrieval, and analysis requests reached a level that confirmed the utility of these services for the agency.

DARP Data Book. Cohort 1-2 Post-DARP Outcomes.
Contract No. 271-77-1229 (9-30-77 to 12-31-78)
Total award. \$56,806. (1978 expenditure - \$56,319.)
Investigators. Dr. Simpson and Mr. Savage.

The extensive data collected in the DARP research on the evaluation of drug abuse treatment was recognized as having extensive utility in the form of normative data on drug abusers in treatment that could not be addressed under the research budget. To enable the preparation of tabular summaries in appropriate, usable form, two data book contracts have been awarded. The first resulted in a publication entitled DARP Data Book: Statistics on Characteristics of Drug Users in Treatment During 1969-1974, by Simpson, Savage, Joe, Demaree, and Sells (IBR Report No. 76-4, April 1976). This report, summarizing background and during-treatment data for the total DARP research sample (N = 27,460), is a veritable treasure trove of information on drug abuse and has been widely used and referenced. The second, prepared under the present contract, focused on the post-DARP data for the Cohort 1-2 followup sample. It was entitled, Data Book on Drug Treatment Outcomes: Follow-up study of 1969-1972 Admissions to the Drug Abuse Reporting Program (IBR Report 78-10, September, 1978, by Simpson, Savage, and Sells). As in the case of the 1976 data book, this comprehensive compilation included tabular data covering all information collected on the Cohort 1-2 followup samples, with breakdowns by client characteristics, treatment classification, type of outcome, and time elapsed from DARP termination, by month and year intervals, up to the followup interview.

CODAP and NDATUS Assessment Project (CANAP).
Contract No. 271-78-5701 (9-29-78 to 9-28-79).
Total award. \$198,966. (1978 expenditure - \$30,508.)
Investigators. Dr. Joe, Dr. Singh, Mr. Garland, Mr. Lehman

This contract was developed by the NIDA Division of Scientific and Program Information (DSPI), which is responsible for the national data systems, CODAP (Client

Oriented DATA Acquisition Program) and NDATUS (National Drug Abuse Treatment Utilization Survey. CODAP is completed at admission and at discharge on every person (client) admitted to treatment by every treatment unit (clinic) providing drug abuse treatment under federal funding and includes Veterans Administration and Bureau of Prisons treatment programs as well as programs funded directly by NIDA. The CODAP reports were initiated in 1974 to provide management data and policy-relevant information to NIDA and the states. NDATUS is an annual survey of treatment clinics in the United States developed as a management instrument to estimate treatment capacity, in terms of client "slots" available and utilized, and contains information on the types of treatment provided, facilities, location, staffing, and other relevant items. Having decided (1) that it needed information on clinic effectiveness and clinic characteristics (within treatment modalities) associated with clinic effectiveness, and (2) that such information might be developed through research using CODAP and NDATUS data, DSPI outlined its requirements and issued a call for competitive proposals to pursue this research. The result of the competition was the award of this contract to IBR.

During 1978 the project was organized with Dr. Joe as director and Dr. Singh as his associate. CODAP and NDATUS tapes for the year 1977 were prepared by DSPI as requested by Dr. Joe and were reviewed and edited by the IBR staff. It was decided to utilize data only for the first six months of 1977 for the study and plans for data reduction and the construction of aggregate variables for clinics, based on CODAP data for clients assigned to each clinic were developed. The construction of clinic aggregates required careful selection of variables to be retained and exclusion of clinics for which aggregates were not warranted (because of small numbers of clients by treatment modality, treatment types that could not be classified, or other factors).

At the initiation of the contract much time and effort were devoted to literature review and specification of theoretical models to guide data management and organization and preparation for major analyses of clinic aggregates. It was also planned to conduct a parallel set of analyses at the level of individual clients, in which clinic data would be coded for each individual as environmental input. Comparison of the individual and aggregate results has much theoretical as well as practical value and the study promises to make an important contribution to the understanding of treatment evaluation.

SUBSTANCE ABUSE CONTRACTS - NIAAA

Assessment of Combined Treatment for Alcohol and Drug Abuse Clients.

Contract No. ADM 281-76-0024 (6-29-76 to 3-31-79)
Total award. \$117,988. (1978 expenditure - \$16,500.)
Investigators. Dr. Cole, Ms. Cole, Mr. Lehman.

At the federal level, treatment programs for alcohol and drug abuse clients have been administered separately by NIAAA and NIDA, and organizations that treat both types of clients have been required to obtain separate support and to carry the increased administrative burdens of working with and reporting to two separate agencies. In large cities this has not presented particular problems because the numbers of clients in both categories have generally favored large programs. Many smaller communities, mainly in "middle America" have had ongoing alcohol treatment programs and more recently have experienced a need for drug treatment but were not prepared to initiate separate programs; these communities have frequently included the drug clients in their alcohol programs. Since most of these were not federally funded, the combination of drug and alcohol clients in the same treatment activities was administratively feasible. Meanwhile, a number of experienced therapists have begun to advocate combined treatment for substantive rather than purely administrative reasons, with emphasis on a rationale that focuses on the client and his or her problems rather than on the substance abused. This incipient movement appears to have gained some momentum and leaders in NIAAA and NIDA have shown an interest in obtaining critical information, as opposed to opinion, on the merits of combined treatment. The present project was undertaken at the request of NIAAA and the reports resulting from it have generated wide interest.

The first study, Assessment of Inpatient/Residential Combined Treatment for Alcohol and Drug Abuse Clients (Cole and Cole, IBR Report No. 77-12) involved a sample of five programs that began and continued as combined programs, five that began as alcohol treatment programs and became combined programs, and five each of separate alcohol and drug treatment programs administered by the same agency. These were all inpatient or residential programs. Subsequently, at the request of NIAAA, this research was repeated on a similarly constituted sample of outpatient combined programs. This resulted in a second report, comparing the inpatient and outpatient results (IBR Report No. 78-5, by Cole, Lehman, and Cole).

The methodology of both studies involved field interviewing and completion of questionnaires by agency heads,

program directors, treatment staff, and samples of clients at each program. The emphasis was on perceptions of treatment effectiveness; prospective outcome measurement was not feasible within the constraints of time and funds, although such research was strongly recommended as a followup to the present research. The results obtained suggested that the major problem with inpatient combined treatment is the integration of alcohol clients into combined treatment and the integration of all clients into society after treatment. Outpatient treatment was perceived to foster attrition because of the pressures of society and the ease of leaving the program. Combined treatment appeared to require more staff training than separate treatment, but has the potential for effective results. Separate treatment was most preferred by older, white, alcohol abusers.

INDUSTRIAL AND ORGANIZATIONAL RESEARCH

Assessment of Needs for Human Resource Management and Development of Principles and Guidelines for Management and Development of Enlisted Personnel.

Contract No. N001-72-0179-0001 (1-1-78 to 12-31-78).

Office of Naval Research, ONR.

Total award. \$77,000. (1978 expenditure - \$74,511.).

Investigators. Dr. James, Dr. Hater, Mr. Irons, Dr.

Stackfleth, Dr. Gent, Dr. Corey, Mr. Bruni.

The ONR contract for 1978 involved new phases of organizational research, but predicated on research and development in prior years. This contract involved (1) an assessment of needs for human resource management in the Navy, based on examination of existing record and report files, and (2) further research on the measurement of psychological climate and development of theoretical models of optimal "person-environment fit", applying instruments and concepts tested earlier on civilian personnel in industrial settings to enlisted aircraft maintenance personnel at Naval Air Training Stations in the Southwestern part of the United States. In addition, data collected in 1977 on civilian samples were analyzed further and provided the basis for important publications in 1978. The objective of this research was to develop principles and guidelines for leaders (e.g. chief petty officers) that could be incorporated in training exercises for the effective management of enlisted personnel.

The first task involved extensive visitation at Naval installations throughout the United States, examination of record files, and consultation with research and line officials concerning the information developed and the interpretations arrived at. This resulted in a technical report, entitled "An examination of the use of data from existing Navy records and data bases as indicators of human resource management needs and operational readiness" (IBR report No. 78-15, by Stackfleth, James, and Sells). This report has important policy implications and was received with much interest.

The data obtained at the Naval Air Training Command were designed to provide information on (1) correlates of supervisor behaviors toward each subordinate, in the context of superior-subordinate dyads, (2) relationships between superior behaviors and subordinate psychological climate perceptions (PC), relationships between subordinate (PC) and individual outcome measures (performance, anxiety, satisfaction with job, and intention to reenlist). Analyses

of similar data in the prior studies on civilian samples had indicated that (a) supervisor's are influenced by the behaviors and attitudes of subordinates in their behaviors toward subordinates, (b) supervisors' behaviors are also related to subordinates' perceptions of the supervisor, and (c) subordinates' perceptions of thier own psychological influence (a key PC variable) are important predictors of performance, anxiety, satisfaction, and intention to remain in the Navy (reenlist). These results have been represented in a causal model and are to be cross-validated on the Naval Air Training samples; assuming that they hold up, they are to be used as a basis for training exercises that will be evaluated empirically.

Using both civilian and Navy data, a number of technical reports and journal publications were completed during 1978. These involved (1) Correlates of psychological influence. An illustration of the psychological climate approach to work environment perception (IBR Report No. 78-14, by James, Gent, Hater, and Corey) (This was also accepted for publication in Personnel Psychology), (2) Causal factors in leader behavior. Situational constraints vs. reciprocal relations with subordinate performance (IBR Report No. 78-16, by James, Irons, and Hater), (3) Psychological climate. Implications from cognitive social learning theory and interactional psychology (Personnel Psychology, 1978, 31, 783-813, by James, Hater, Gent, and Bruni), (4) Dimensions and relations of individual and aggregate work environment perceptions (Organizational Behavior and Human Performance, accepted for publication, by Allan P. Jones - NHRC and James).

In addition to these and other substantive studies, a number of statistical-methodological studies were completed by the organizational-industrial research group under Dr. James' leadership. They include a major paper on causal analysis - An introduction to the logic, assumptions, and analytic procedures of two-stage least squares (Psychological Bulletin, 1978, 85, 1104-1122, by James and Singh), A note on the dynamic correlation coefficient (Journal of Applied Psychology, 1978, 63, 329-337, by James, Hornick, and Demaree), and a paper entitled, "Moderator analysis based on subgrouping. Some potential pitfalls", presented at the American Psychological Association in Toronto, by James, Coray, Hornick, and Demaree.

Identification of Environmental Factors Associated with
Retention and Success in the Air Traffic Control
Specialist Training Program.

Contract No. LGR-8-0262 (9-19-78 to 5-18-79)

Federal Aviation Administration

Total award. \$55,900. (1978 expenditure - \$8,047.)

Investigators. Dr. James, Dr. Hater, Mr. Irons, Mr. Nail,
Mr. Shanahan.

At the request of the Federal Aviation Administration this study was undertaken to investigate problems that might be related to counter productive attitudes expressed by trainees in the Air Traffic Control Academy and a high rate of attrition. More specifically, the study was designed to investigate differences in the perceived training environment among subgroups of trainees defined by sex and minority-majority status in relation to attitudes (e.g. satisfaction), living conditions during training, personality measures (e.g. self-esteem, achievement motivation, alienation, and internal-external locus of control), and performance in training. During the initial period of this study, in 1978, major effort was devoted to reviews of literature on educational climate, sex differences, race differences, and other studies of air traffic controllers. Members of the staff interviewed significant faculty and students at the ATC Academy and FAA officials in Washington. The information gained from the literature reviews and interviews was utilized in preparation of data collection instruments.

<u>Airline Pilot Selection Research</u>	<u>1978 expenditure</u>
American Airlines (continuing, since 1975)	\$52,577.
Trans World Airlines (continuing, since June, 1978)	14,229.
Aerospace Medical Associates, Dallas (for Texas International Airlines (continuing since March, 1978))	7,442.
<u>Investigators.</u> Dr. Greener, Dr. James, Mr. Arno, Mr. Booth	

The IBR has been involved in airline pilot selection since the early 1960's, when a major study was carried out for Eastern Airlines. Dr. Sells has consulted with American, United, Eastern, and other airlines regularly during the intervening years. The current studies for American and Trans World Airlines have involved full-scale test-battery development and validation and the American study has involved other phases, described below. The testing for Texas International will eventually permit a validation study, but this has progressed on a smaller scale.

American Airlines.

Validation research. During 1978 a validation study was conducted on the largest sample available for this purpose to date (388 applicants - 107 hires) and the first sample to be tested before being hired (Prior testing with the experimental test battery developed for American had been confined to groups recalled from furlough). A predictor composite consisting of 17 cognitive, personality, and experience variables was validated for this sample and introduced for provisional operational use in 1978. In addition a larger sample (746 applicants - 288 hires) was tested during 1977-78 and was expected to complete probation in 1979. As the performance (criterion) data become available for this group, cross-validation analyses are scheduled to proceed.

Minority testing. Through cooperation with the Organization of Black Airline Pilots, IBR staff were able to administer the American Airlines selection battery to volunteer groups of black pilots meeting in Nashville and San Francisco. Testing on this study continued into 1979. This study was undertaken to investigate "fairness" in the test battery.

Captains study. A special project, involving the testing of captains and first officers who volunteered to participate, was initiated in 1978 and continued into 1979. The purposes of this project were to obtain normative data on the test battery, to investigate the effects of age and experience on certain variables, and to provide a comparison group for the minority group analyses.

Trans World Airlines.

A new pilot selection-test battery development and validation study was undertaken for TWA beginning in the Summer of 1978. The initial phases included verification of desired characteristics of TWA Captains, development of a provisional test battery, providing test administration training for TWA personnel, and development of methods and procedures for reporting performance data for the collection of criterion measures. During 1978 the provisional test battery was administered to 348 applicants by TWA personnel in the Medical Department and scored and retained by IBR for the research.

Texas International Airlines.

A testing program for the selection of pilots for Texas International Airlines was introduced in 1978 in cooperation with Aeromedical Associates who conduct the psychological and medical evaluations for Texas International. This program has a small applicant flow and is expected to continue for several years before sufficient data are available to allow for a formal validation study.

Comparison of side-by-side vs. tandem seating arrangements in primary jet trainer aircraft.

Contract No. 5-23246 (1978-1979)

General Dynamics, Fort Worth Division

Total award. \$2,832.

Investigators. Mr. Booth, Dr. Stackfleth.

This study was undertaken at the request of General Dynamics to provide a basis for an important decision on cockpit design for a new jet aircraft to be used as a military primary trainer. Relevant literature on cockpit design and instructional aids was reviewed and a number of human factors engineers and instructor pilots were interviewed for suggestions concerning the critical issues involved. A questionnaire was then constructed and this was completed by instructor pilots at Embry-Riddle Aeronautical University (Daytona, Florida) and at Eastern Airlines. The results were analyzed in a final report that was under review at the end of the year.

Development of Selection Tests for Entry-Level Firefighters.

Contract with the City of Fort Worth

Initiated April, 1977, to November, 1978

Total award. \$15,000. (1978 expenditure - \$6,522.)

Investigators. Dr. Stackfleth, Mr. Arno, Dr. Hornick, Mr. Booth.

This project was requested by the City of Fort Worth to assist the Personnel Department in the development of culture-fair performance tests to be used in the selection of entry-level firefighters. A prior selection battery had been developed and validated for the Fort Worth Fire Department in 1972 (Mundy and Norton, IBR Report No. 72-2), but in that study it was not feasible to address the issue of fairness to minority applicants. In 1978 the City received funds from the U.S. Civil Service Commission to develop new behavioral measures and additional selection instruments that would minimize decrements for minority applicants in relation to majorities. This work was completed in the Fall of 1978 and the final report was issued as IBR Report No. 78-17, by Stackfleth, Arno, and Hornick.

VISITORS TO IBR

January Jackie Peterson, Program Director, NORC, New York
Francis M. Lucas, ONR Resident Representative,
Austin
Emanuel Lomba, Personnel Department, Eastern
Airlines

February Jane Maxwell, Drug Abuse Prevention Division,
TCDA, Austin

March Ross Stagner, Professor of Psychology, Michigan
State University

April Norman Endler, Professor of Psychology, York
University, Toronto
Frank Tims, Services Research Branch, NIDA
David Magnusson, Professor and Chairman, Depart-
ment of Psychology, University of Stockholm,
Sweden
Lloyd Johnston, Survey Research Center, University
of Michigan

May Charles Sapp, CENIKOR (Drug Treatment Program)
Robert C. Houston and David Toole, American Airlines
J. McV. Hunt, Professor Emeritus of Psychology,
University of Illinois
Peter Goldberg, Drug Abuse Council, Washington,
D.C.
Robert Felbinger, Federal Aviation Administration,
Washington, D.C.

June Peter Vygantas, Senior Vice President, Americana
Hotels, N.Y., Faculty member of TCU Management
Seminar
Joanne Brancato, R.N., and Donna Longsine, R.N.,
Trans World Airlines

July Carl Jacobs, Anhauser-Busch, St. Louis
Carl Peters, Computation Center, University of
Texas, Dallas
Neil Sampson, Eduardo Siguel, Anne Blanken, and
Don Robitaille, Division of Scientific and
Program Information, NIDA
Robert Guion, Professor of Psychology, Bowling
Green State University, Ohio
Mary Lewis, Federal Aviation Administration,
Oklahoma City

August Ransom J. Arthur, M.D., Co-Chairman, Division of
Psychiatry, UCLA School of Medicine
Mike Simmons, IBR National Educational Testing
Systems
Amiel Sharon, Educational Testing Service

September Capt. David Timberlake, U.S.N., Bureau of Per-
sonnel, U.S. Navy
David McGee and Sergei Kochkin, Pilot Selection
Group, United Airlines
Karl Heinz Reuband, Drug Research, Cologne,
Germany
Carl Deibel, Technology Assessment, General
Accounting office, Los Angeles
Dolores M. Borland, Research Scientist, North
Texas State University

October John Grubb and William Boice, attorneys repre-
senting American Airlines
John O'Donnell, Professor of Sociology, Univer-
sity of Kentucky
Olive Watterson, Ph.D., IBR alumna
Betty Garland, Head. Non-Medical Use of Drugs
Directorate, Health and Welfare, Ottawa,
Canada

November Yip Peng Low, Principal, Drug Rehabilitation
Unit, Kuala Kuba Bharu, Malaysia
John Ball, Professor of Psychiatry (Sociology)
Temple University, School of Medicine
Paul Seder, Division of Scientific and Program
Information, NIDA
Lawrence Chaitkin, Division of Scientific and
Program Information, NIDA

December John Wackwitz, Denver, Consultant on Sociodemo-
graphic analysis
Jim Davis and Larry L. Patton, Human Factors
Engineering, General Dynamics, Fort Worth,
Division

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- 78-2 Simpson, D.D. and Savage, L.J. Outcomes and return to treatment during a three year followup. National followup study of admissions to drug abuse treatments in the DARP during 1969-1972. March, 1978.
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- 78-16 James, L.R., Irons, D.M., and Hater, J.J. Causal factors in leadership behavior: Situational constraints versus reciprocal relationships with subordinate performance. November, 1978.
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