

R
853
U56164
1983

DRG

ANNUAL REPORT



DIVISION OF RESEARCH GRANTS
NATIONAL INSTITUTES OF HEALTH
FISCAL YEAR 1983

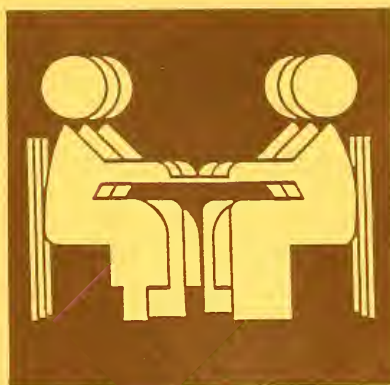


**Receipt, Processing, Referral
of Grant Applications**

DRG

ANNUAL REPORT FY 1983

*National Institutes of Health (N.I.H.) Division of
Research Grants.*



**Scientific Merit Review
of Grant Applications**



Information Management

CONTENTS

	<u>Page No.</u>
Highlights	v
Office of the Director	1
Extramural Associates Program	5
Grants Associates Program	11
Office of Grants Inquiries	15
Administrative Branch	17
Referral and Review Branch	19
Research Analysis and Evaluation Branch	35
Statistics and Analysis Branch	37

HIGHLIGHTS

- Approximately 25,500 competing applications and 20,000 noncompeting applications received, processed, and referred by the Referral and Review Branch.
- Almost 19,000 applications reviewed for scientific merit by study sections in the Referral and Review Branch.
- More than 39,500 information requests managed by the Statistics and Analysis Branch using the IMPAC and CRISP computer systems.
- Over 20,000 information and publication requests responded to by the Office of Grants Inquiries.
- Approximately 120,000 grant application kits and other instructional materials processed and mailed to applicants by the Administrative Branch.
- Scientific Review Branch, Referral Branch, and Office of Research Manpower consolidated into the Referral and Review Branch.
- Division actively involved in the NIH Small Business Innovative Research (SBIR) program. The Office of the Director and the Referral and Review Branch assisted in the preparation of the SBIR solicitation document and application kit. The Office of Grants Inquiries served as the central information source for the small business community, providing them with information about receipt dates and application procedures as well as furnishing them with SBIR application materials. In July and August, the Referral and Review Branch held special study section meetings to review approximately 625 SBIR applications so that awards could be made during the 1983 fiscal year. The Statistics and Analysis Branch and Office of Grants Inquiries established an SBIR database to be used for statistical studies and future mailing of materials.
- Continuing progress reported in the development and implementation of a data communications network using remote terminals located in the various NIH extramural program offices. The network will include the receipt and processing of applications, the preparation of voting sheets, summary statement forms, and resumes for initial review groups, and the preparation of award statements and associated documents. A significant achievement was the decentralization of the processing of awards.
- Statistical data, slides, and evaluation studies on varied topics pertaining to the NIH extramural programs prepared for the NIH community by the Statistics and Analysis Branch and Research Analysis and Evaluation Branch.

HIGHLIGHTS (Con.)

- Special file of AIDS projects and related research created by Research Analysis and Evaluation Branch, and monthly reports generated from the file for the NIH AIDS Working Group.
- Handbook for Executive Secretaries extensively revised.
- Annual extramural data and trend publications prepared, including the Research Awards Index, NIH-NIMH Intramural Research Index, Medical and Health Related Science Thesaurus, "Brown Book" series of NIH extramural awards, and NIH Extramural Trends: 1972-1982 with accompanying slides.

OFFICE OF THE DIRECTOR

Dr. Carl D. Douglass, Director, spoke about the NIH extramural program and peer review process at the University of Rochester Medical Center, in Rochester, New York, on October 18, 1982; at the Chicago Medical School, in Chicago, Illinois, on October 30, 1982; at the Massachusetts General Hospital, in Boston, Massachusetts, on January 18, 1983; at the National Advisory Council for the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, in Bethesda, Maryland, on February 10, 1983; at the Council of Academic Societies, Association of American Medical Colleges, in Washington, D.C., on February 14, 1983; at the National Colloquium on Engineering Research Grants and Contracts, Louisiana Tech University, in Ruston, Louisiana, on February 23, 1983; at North Carolina State University, in Raleigh, North Carolina, on April 13, 1983; at the American Urological Association, in Las Vegas, Nevada, on April 17, 1983; at the NIH Director's Advisory Committee, in Bethesda, Maryland, on June 20, 1983; and at the Association of Independent Research Institutes, in Oklahoma City, Oklahoma, on September 22, 1983. During the past fiscal year, Dr. Douglass was also a member of the NIH Resource Allocation Group, Department of Agriculture Competitive Research Grants Program Policy Advisory Board, Editorial Advisory Committee for American Men and Women of Science, NIH Administrative Data Base Steering Committee, NIH Long-Range Facilities Planning Group, NIH Search Committee for the Director of the Office for the Protection from Research Risks, and NIH Search Committee for the Assistant Deputy Director for Extramural Research and Training.

Dr. S. Stephen Schiaffino, Deputy Director, discussed the NIH peer review process at the NIH Grants Administration Conference in Houston, Texas, jointly sponsored by Baylor College of Medicine and the National Council of University Research Administrators (NCURA), on October 20 and 21, 1982; at a NCURA meeting in Washington, D.C., on November 9, 1982; at two NIH Grants Management Advisory Committee seminars in Bethesda, Maryland, on January 18 and February 26, 1983; at the Small Business Innovative Research Conference at the NIH, in Bethesda, Maryland, on February 7 and 8, 1983; at a workshop and seminar with staff from the National Institute of Child Health and Human Development in Little Rock, Arkansas, on April 14 and 15, 1983; at an NIH symposium at Oklahoma State University in Stillwater, Oklahoma, on May 25 and 26, 1983; at an NIH Grants Administration Conference, in Burlington, Vermont, jointly sponsored by the University of Vermont and NCURA on June 5 to 7, 1983; and at an American Association of Medical Colleges meeting, in Washington, D.C., on June 30, 1983. In addition, Dr. Schiaffino participated in two meetings of the President's Cancer Panel--on March 4, 1983 at M.D. Anderson Hospital and Tumor Institute, Houston, Texas, and on April 18, 1983, at Northwestern University Medical School, Chicago, Illinois. On February 23 and 24, 1983, he was a member of an NIH Animal Care Site Visit Team that visited Hershey Medical Center to determine the nature and use of laboratory animals. (This was 1 of 10 randomly selected site visits by the NIH.) Finally,

Dr. Schiaffino was a member of the following NIH committees: Extramural Program Management Committee (EPMC), EPMC Task Force on Post-Investigational Sanctions, EPMC Subcommittee on Staff Development, EPMC Subcommittee on Appeals, EPMC Subcommittee on Agenda, Research Resources Coordinating Committee, Coordinating Committee on Manpower, Bureau, Institute, or Division (BID) International Representatives Committee, Subcommittee for Review of Division of Computer Research and Technology Central Services Financing, and Subcommittee on Agency Management of Federal Radiation Research.

The Division has again experienced budget restrictions, which affected its career development needs. Nonetheless, DRG continued to encourage staff participation in some form of formal training. One hundred and fifty six employees enrolled and completed job-related training courses, 15 of them attending classes at the University of the District of Columbia as participants in the Upward Mobility Program.

The Division's Equal Employment Opportunity (EEO) program, Employee Advisory Committee (EAC), and Women's Advisory Committee (WAC) continued their efforts to promote equal employment for all employees--regardless of race, sex, religion, age, national origin, or mental or physical handicap; to maintain the open lines of communication between DRG management and staff; and to provide general information, career, and other services to employees. These efforts were reflected in several programs and activities during the fiscal year.

On May 5, 1983, as part of Professional Secretaries' Week, the EEO Office sponsored a seminar entitled "Professionalism for Secretaries and Support Staff." The speaker was Mrs. Johnnie Griffin, Director, Secretarial Evaluation Clinic, Inc.

This past fiscal year also saw the beginning of the Career Search Program, a program developed by the EEO and EAC to provide DRG employees with short-term, on-the-job work experiences in offices outside their normal work assignments. The program has been highly successful, with 16 participants having completed the program. The program is expected to continue next year.

The EAC sponsored a series of "brown bag," lunch seminars on issues of interest or concern to employees. The topics were selected from DRG responses to a desk-to-desk questionnaire circulated last year. The following seminars were well attended.

<u>DATE</u>	<u>TOPIC OF SEMINAR</u>	<u>PRESENTERS</u>
January 27, 1983	"Technology Changes in DRG and How they Affect You"	Dr. Stephen Schiaffino Deputy Director, DRG
February 22, 1983	"Sexual Assault and Rape Prevention"	Officer Jack Glover Montgomery County Police Department
February 28, 1983	"An Overview on Sexual Harrassment"	Ms. Marge Rosenweig President, Montgomery Co. Commission for Women
March 8, 1983	"Women on the Rise in DRG"	Four women panelists
March 31, 1983	"Important Information from DRG Personnel"	Mr. John Robertson DRG Personnel Officer
May 25 and June 8, 1983	"Women Health Issues of the 80's"	Dr. Antonia Novello DRG Executive Secretary

In an effort to improve communications with employees, the EAC set up four new suggestion boxes at different locations in DRG and published all concerns and responses in Keeping You Informed. Additionally, members of DRG staff were randomly selected and formally invited to attend regular EAC meetings.

A perennial problem has been with cars parked illegally in spaces reserved for the handicapped. A new system to expedite issuing tickets to violators is working well, and the situation has improved.

During this fiscal year, the Division of Research Grants was asked to manage the 1982 Combined Federal Campaign at the NIH. The Chairman was Dr. Douglass, Director; the Coordinator was Mr. George E. Jarboe, Executive Officer; and the Campaign Assistant was Ms. Sharon A. Porter, Management Analyst. Under their leadership and with the untiring efforts of so many DRG and other NIH employees, the NIH campaign was extremely successful. The NIH community gave \$263,745--\$8,000 more than was raised during the previous campaign--as nine BIDs, including DRG, exceeded their designated goals, and the NIH as a whole reached 90 percent of its goal.

EXTRAMURAL ASSOCIATES PROGRAM

PROGRAM HIGHLIGHTS

Thirteen Extramural Associates from minority and women's institutions were in residence and completed the Program during the current fiscal year. (See the attached listing of Associates.) One Extramural Resident (National Institute of Child Health and Human Development) was also assigned to the Program with approval from the NIH Deputy Director. With the Associates who completed residencies during Fiscal Year 1983, the total since the Program began in 1978 is 57, representing 26 different states and territories.

Orientation and weekly seminars for the two groups of Fiscal Year 1983 Associates included 189 lectures and conferences totaling 317 seminar hours. Seminars covered issues pertinent to the NIH grant and contract processes, BID intra- and extramural activities, and research programs of other Federal agencies.

Each group of Associates also participated in a 5-day Congressional Operations Institute offered by the Government Affairs Institute, and made site visits to the National Institute of Environmental Health Sciences, the Environmental Protection Agency, and the Army Research Office, Department of Defense, at Research Triangle Park in North Carolina.

During this past fiscal year, the Extramural Associates carried out 13 home institution site visits. These visits were to encourage increased utilization of the Associates' newly acquired expertise upon return to their institutions after the program, and to review their institutions' capabilities and research interests with faculty and administrators so as to guide the Associates during their NIH residency.

The Extramural Associates Program now has a permanent Advisory Board, appointed by the NIH Deputy Director. Board members are appointed for three-year staggered terms. Since being appointed, the Board has revised and strengthened criteria for evaluating institution and candidate eligibility. The new Board has also begun to work on the implementation of program recommendations developed during the 1982 Extramural Associates Program Workshop.

During Fiscal Year 1983, the Program Director visited 16 colleges and universities in Massachusetts, Connecticut, New York, North Carolina, and Virginia to discuss with presidents, deans, and top officials the requirements and objectives of the Program. This approach has proven highly productive, for over 50 percent of the candidates for the 1983-84 program year have been selected as the direct result of these visits.

National publicity was carried out during Fiscal Year 1983 through the use of Extramural Associates Program exhibits displayed at conferences of the National Association for Equal Opportunity in Higher Education, held in Washington, D.C.; the Minority Biomedical Research Support Symposium, held in Washington, D.C.; the National Institute of Science and Beta Kappa Chi Scientific Honor Society, held in Cincinnati, Ohio; the North Carolina A&T State University Ninth Annual Symposium, held in Greensboro, North Carolina; and the National Council of University Research Administrators, held in Washington, D.C.

Announcements for the 1983-84 program year have been mailed across the United States to over 300 administrators and scientists in colleges and universities that significantly contributed to the pool of minorities and women in science. Continuing communications among the NIH, Associates, and participating institutions were strengthened by distributing the third and fourth Extramural Associates bulletins.

PROGRAM EFFECTIVENESS

During the past fiscal year, seven institutions that had participated in the Extramural Associates Program utilized the NIH Visiting Professor Program. Under the direction of Dr. Philip S. Chen, Jr., Assistant Director for Intramural Affairs, NIH, 16 intramural scientists provided a wide variety of technical, advisory, consultative, and teaching assistance related to science and research. Participating institutions included:

- Bethune-Cookman College
Daytona Beach, Florida
- Meharry Medical College
Nashville, Tennessee
- North Carolina Central University
Durham, North Carolina
- Randolph-Macon Woman's College
Lynchburg, Virginia
- Texas Woman's University
Denton, Texas
- Tougaloo College
Tougaloo, Mississippi
- University of Puerto Rico
San Juan, Puerto Rico.

Examples of individuals who have received new positions or have taken on additional research responsibilities since completing their Extramural Associates residencies include the following:

- Dr. Lawrence J. Alfred
Charles R. Drew Postgraduate Medical School
Los Angeles, California
Director of Grants and Contracts
- Dr. Carol D. Guze
California State University, Dominguez Hills
Carson, California
Associate Vice President for Planning
- Dr. Edward G. High
Meharry Medical College
Nashville, Tennessee
Appointed to National Institute on Aging
Advisory Council, NIH
- Dr. Henry Lewis, III
Florida A&M University
Tallahassee, Florida
Associate Dean for Development
- Dr. Linda H. Mantel
City College of the City University of New York
New York, New York
Assistant Provost for Research and Graduate Studies
- Dr. Edward L. Risby
Tennessee State University
Nashville, Tennessee
Appointed to Science Advisory Committee,
National Association for Equal Opportunity in
Higher Education
- Dr. Arthur C. Washington
Prairie View A&M University
Prairie View, Texas
Dean of the Graduate School
Director of Biological Research

The Extramural Associates Program has developed high national visibility and is having a significant positive impact upon the image and reputation of the NIH among institutions across the nation that contribute most to the pool of minorities and women in science and research. It is the intent of the Program to sustain and strengthen this trend.

NIH EXTRAMURAL ASSOCIATES PROGRAM

July 30 - December 31, 1982

ASSOCIATES

Dr. Lawrence J. Alfred
Associate Professor of Pathology
Charles R. Drew Postgraduate
Medical School
1621 East 120th Street
Los Angeles, CA 90059
(213) 603-3158

Dr. Ruth M. Brady
Professor of Chemistry
Alcorn State University
Box 327
Lorman, MS 39096
(601) 877-3711 ext. 250

Dr. Earnest B. Campbell
Executive Vice President
Lane College
P.O. Box 3038
Jackson, TN 38301
(901) 424-4600

Dr. Lemuel A. Evans
Chairperson, Division of Natural
Science and Mathematics
Medgar Evers College of CUNY
1150 Carroll Street
Brooklyn, NY 11225
(212) 735-1761

Dr. Carol D. Guze
Professor of Biology
California State University,
Dominguez Hills
1000 East Victoria Street
Carson, CA 90747
(213) 516-3381 or
(213) 516-3696

Dr. Steve B. Latimer
Research Director
Langston University
Box 780
Langston, OK 73050
(405) 466-3833

ADVISORS

Dr. John W. Diggs
Director, Extramural
Activities Program, NIAID
Federal Building, Room 1016
496-4188

Dr. Jane Showacre
Executive Secretary
Maternal and Child Health
Research Committee
Office of Scientific Review, NICHD
Landow Building, Room 6C03
496-1696

Mr. Elward Bynum
Director, Minority Access to Research
Careers Program Branch, NIGMS
Westwood Building, Room 9A18
496-7941

Dr. George T. Brooks
Director, Extramural Activities, NIADDK
Westwood Building, Room 637
496-7277

Dr. Eugene Streicher
Director for Fundamental
Neurosciences Program, NINCDS
Federal Building, Room 916
496-5745

Ms. Shirley L. Bagley
Special Assistant to the
Deputy Director, NIA
Building 31, Room 2C06
496-5278

NIH EXTRAMURAL ASSOCIATES PROGRAM

January 28 - June 30, 1983

ASSOCIATES

Dr. Balwant S. Ahluwalia
Professor, Department of Obstetrics
and Gynecology
Howard University College of Medicine
Box 23
Washington, DC 20059
(202) 745-1163

Dr. Siraj Ahmad
Chairman of Natural Science and
Mathematics Division
Professor of Chemistry/Physics
LeMoyné-Owen College
807 Walker Avenue
Memphis, TN 38126
(901) 774-9090 Ext. 326

Dr. Lester F. Aungst*
Associate Professor of Speech Pathology
West Chester State College
West Chester, PA 19380
(215) 436-3401

Sr. Annette Bower, Ph.D.
Chairperson, Biological Sciences
Department
Professor of Biology
Mount St. Mary's College
12001 Chalon Road
Los Angeles, CA 90049
(213) 476-2237 Ext. 271

Sr. Jeanmarie DeChant, S.N.D., Ph.D.
Chairperson, Division of Natural
Science
Notre Dame College of Ohio
4545 College Road
Cleveland, OH 44121
(216) 381-1680

ADVISORS

Dr. Maureen W. Myers
Antiviral Substances Program Officer
Development and Applications Branch
Microbiology and Infectious Diseases
Program, NIAID
Westwood Building, Room 750
496-7051

Dr. Anthony A. Rene
Chief, Office of Review
Activities, NIGMS
Westwood Building, Room 949
496-7585

Dr. James F. Kavanagh
Associate Director for Program
Development, Center for Research
for Mothers and Children, NICHD
Landow Building, Room 7C03
496-5097

Dr. James F. O'Donnell
Deputy Director, DRR
Building 31, Room 5B03
496-6023

Dr. Catherine Henley
Review and Special Projects Officer
Extramural and Collaborative
Programs, NEI
Building 31, Room 6A06
496-5561

* Extramural Resident

Dr. Mary F. Finlay
Professor of Biology
Benedict College
Harden and Blanding Streets
Columbia, SC 29204
(803) 256-4220 Ext. 2278

Dr. Bettie J. Graham
Chief, International Research and
Awards Branch, FIC
Building 38A, Room 613A
496-6688

Dr. Henry Lewis, III
Assistant Dean for Clinical Affairs
School of Pharmacy
Florida A&M University
Tallahassee, FL 32307
(904) 599-3343

Dr. Adolphus P. Toliver
Executive Secretary,
Biochemistry Study Section
Scientific Review Branch, DRG
Westwood Building, Room 318
496-7516

Dr. Tossie E. Taylor, Jr.
Dean of Arts and Sciences
Cheyney State College
Cheyney, PA 19319
(215) 758-2420

Mrs. Barbara S. Bynum
Director, Division of Extramural
Activities, NCI
Building 31, Room 10A03
496-5147

GRANTS ASSOCIATES PROGRAM

The objective of this Program is to train independent, mid-career health research scientists in science administration to fill health scientist administrator positions and ultimately to fill executive positions within the Public Health Service (PHS). Overall, the Program has been successful in meeting this objective, as evidenced by the positions held by the graduates of the Program since its inception in 1962.

In Fiscal Year 1983, the twenty-first year of the Grants Associates (GA) Program, five Grants Associates were entered on duty - Drs. Sheila Taube, Roger Aamodt, Ai-Lien Wu, Diane Lucas, and Yung-Pin Liu. Three others completed their programs - Drs. John Beisler, John Fakunding, and Hortencia Hornbeak, each of whom took NIH positions (in DRG, National Heart, Lung, and Blood Institute, and National Institute of Allergy and Infectious Diseases, respectively). Of this total, 4 were females and 3 were minorities.

The total number of graduates of the Program is now 151--128 (85% male, 23 (15%) female, and 24 (16%) minorities. They range in age (based on date of application) from 28 to 58, with all PHS regions represented. Most came to the Program from non-government institutions (96 or 64%); 33 (22%) came from Federal agencies other than NIH, and 22 (15%) came from NIH.

Continued budget constraints on DRG have necessitated the reduction of GA Program slots from 10 to 5, with the added limitation of hiring only GS-12s and 13s. The hiring freeze further limited the Program to hiring only from among PHS employees, historically the smallest pool of candidates for the Program. Six non-PHS candidates were recommended for selection at the start of the hiring freeze, but could not be hired until the freeze was lifted. When it was lifted, the Program lost two and possibly a third of these candidates. (Another from within PHS was lost because of the prohibition against hiring at the GS-14 level.)

The Grants Associates Board recommended certain changes. Since GAs are invited to attend the Board meetings, the need for a liaison representative on the Board was obviated. The fact that GA Board members represent all BIDs at the NIH also obviated the need for separate coordinators in each BID for GA assignments. Hence, Board members will be serving as assignment coordinators for their respective BIDs. However, the need for such coordinators at the non-NIH agencies was recognized, and they will be appointed by the Deputy Director for Extramural Research and Training, NIH.

With the overall budget constraints, an NIH Committee on Career Development Program Evaluation was formed to evaluate the current need for the various training programs. This included the GA Program. Their report will

be distributed to a wide NIH audience for comments and will then be forwarded, with recommendations, to the Deputy Director for Extramural Research and Training. Any substantive program changes will be contingent on the decisions made by that Deputy Director.

Concomitant with this evaluation, the Extramural Program Management Committee has a subcommittee on training, whose responsibility, among others, is to explore training for health scientist administrators. Because this is so closely related to the GA Program, its chairperson, Dr. James O'Donnell, Deputy Director, Division of Research Resources, met with the GA Board and asked for input relative to health scientist administrator training standards. The Board submitted its report to Dr. O'Donnell, who subsequently met with the GA Board to discuss further details and possible implementation plans.

This fiscal year there were 46 nominations to the GA Seminar Series. Because of the continued reduction in numbers of both GAs and Management Interns, extra slots could be used by seminar participants. Hence, 26 of the 46 nominees (56.5%) were selected. Over 40 seminars (more than 160 hours) involving more than 60 speakers for a 10-month period were offered on various topics, NIH offices, and other PHS agencies. Included, also, were seminars on the Office of Science and Technology Policy, Office of Technology Assessment, National Academy of Sciences, National Science Foundation, Office of Management and Budget, and the National Institute of Handicapped Research. The group became so cohesive and enthusiastic that they met informally, on their own initiative, to discuss the seminars in greater depth and how the issues related to their positions.

Although the series is primarily designed to complement the GAs' assignments, it was obvious that the selectees far exceeded the number of Associates. Hence, the series was changed to include seminars that would benefit the larger group. Many of these changes were the result of suggestions from this active group, some of whom prepared, planned, and chaired sessions (e.g., the National Institute of Handicapped Research - its mission, function and overlap with NIH programs, especially low vision research).

During this year, GAs were evaluated under the Employee Performance Management System. This produced two mechanical difficulties. First, the evaluations are due at the end of each calendar year; but due to the staggered entry on duty of the GAs, most are on the Program for some months of two calendar years, even though their term is only a total of 12 months. This required two completely new performance appraisals for most GAs. The timing problem was further compounded by a second difficulty. The Executive Secretary of the GA Board is the GAs' supervisor of record; yet GAs are evaluated by several assignment supervisors through their preceptors, who in fact do the evaluating. All these reports are then forwarded to the DRG Personnel Office, resulting in a thick packet of evaluative materials for a one year position.

The resignation of one of the support staff at the beginning of this fiscal year resulted in an extraordinary amount of work for the remaining person, the GA Office Manager. Even though the number of GAs has been reduced, the volume of work relative to the GA Seminar Series, the GA Board and its several subcommittees, Program reports, materials requested by the GA Program Evaluation Committee, and other activities is the same if not greater than in previous years.

This year, the Executive Secretary of the GA Board was appointed to the Staff Training in Extramural Programs (STEP) Committee. With a co-director (Dr. Catherine Henley, Review and Special Project Officer, Extramural and Collaborative Program, National Eye Institute), he produced a 2-day STEP Module, "Introduction to the NIH Extramural Programs." In addition, he presented two other forums: "NIH Staff Interaction with the Potential Grantees and the NSF Rotator" and "The Active Researcher as Scientist Administrator." The GA Office also prepared a special seminar on NIH extramural programs and procedures for the National Science Foundation rotators to facilitate their understanding of and interactions with the NIH. This proved extremely successful, has been requested on an annual basis by the National Science Foundation, and is being requested by the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA).

OFFICE OF GRANTS INQUIRIES

The Office of Grants Inquiries continued to respond to the information needs and concerns of the biomedical research constituency and of the lay public by providing information on a wide variety of subjects: support mechanisms, peer review process, extramural program areas, assurance and compliance forms, and policy issues. For example, in May the staff answered some 1,498 phone calls, an average of 370 per week. In April, written requests numbered 273 per week.

The PHS Small Business Innovation Research (SBIR) Program was also heavily supported by staff. The Office of Grants Inquiries served as the central information source for the small business community, providing them with information about receipt dates and application procedures, as well as furnishing them with SBIR application materials. On the first round (May 2 receipt date), the staff coordinated some 20,000 inquiries and mailed 10,000 SBIR Omnibus solicitations and 4,000 PHS 398 applications. The staff then entered requestors' names into a database to be used for statistical purposes and for mailing a notice of availability for the next SBIR competition receipt date. Using the database, some 4,500 copies of a new SBIR application (PHS 6246-1) were mailed around August 1 to potential applicants for the October 3 receipt date.

The Office of Grants Inquiries received publication lists from several meetings held around the country by NIH and furnished the requested publications and applications. Thus, the 1983 FASEB meeting, held in Chicago, generated 200 requests for mailouts. Office staff also cooperated with the NIH Division of Public Information in providing informational materials for use at the FASEB exhibit. An additional 270 orders were sent in response to other meetings.

Office staff wrote and produced a pamphlet, NIH Grants and Awards, for use as an information aid in responding to requests for mechanisms of NIH support. Staff also redesigned and updated the DRG Organization and Functions brochure. Another publication, Federal Programs for Minorities, Women, and the Handicapped, is also being revised.

Staff were involved in several other communication projects during the year. They initiated and worked with the Grants Associates program staff and others to revise the Grants Associates Program, a pamphlet used as a recruitment aid for the program, and assisted Dr. George Eaves in updating his article, "Who reads your project-grant application to the NIH?" Two staff members participated in the Combined Federal Campaign by providing publicity to the NIH Record.

Other Office of Grants Inquiries accomplishments include the following:

- Provided special data monitoring reports on for-profit organizations applying for grant support and the SBIR initiative to DRG, ODERT, NIH, PHS staff, Congress, and other interested parties.

- Expanded the Office's collection of informational materials available to the research community on the NIH extramural process.
- Provided assistance to DRG, other NIH and PHS staff for the following publications: Research Awards Index (publicity); NIH New Grants and Awards (printing and distribution); NIH Research Grants, FY 1982 Funds (publicity and distribution); NIH Research and Development Contracts, FY 1982 Funds (publicity and distribution); NIH Research Training, Construction, Cancer Control, and Medical Libraries, FY 1982 Funds (publicity and distribution); Analysis of the Initial Review of NIH Grant Applications to Conduct Clinical Research (clearance, printing, and distribution); PHS Grants Policy Statement (distribution); PHS Profiles of Financial Assistance Programs (distribution); and NIH Extramural Programs, Funding for Research and Research Training (distribution).
- Served as a resource for information on the NIH extramural programs and policies, peer review process, application procedures, grantee support data, and publications, and provided statistical information concerning NIH extramural support to a number of Congressional and news media sources. Approximately 700 requests required manual or computer searches pertaining to research areas, disease entities, grantee institutions, principal investigators, or NIH support of this year's Nobel Laureates and Lasker Award winners.
- Utilized new word processor technology to capture data on SBIR program and publications inventory.
- Responded to 40 Freedom of Information requests during the year.
- Wrote and submitted to the NIH Record 20 articles on DRG staff and other publicity needs of the Division.
- Provided assistance to more than 200 visitors to the Division.

GRAPHIC ARTS

The Visual Information Specialist prepared or revised approximately 2,000 graphs, charts, slides, certificates, publication covers, posters, and flyers. He assisted in the development of the DRG Administrative Report, Workshop on Ion Translocating ATPases, EEO Report on Minorities, Clinical Investigator and Academic Teacher Investigator Awards, Analysis of the Initial Review of NIH Grant Applications to Conduct Clinical Research, Arthritis Centers Personnel Directory, and many other publications. In addition, he took approximately 700 photographs of staff functions and study section meetings, and arranged to have over 3,500 slides duplicated at the NIH photography laboratory. Finally, the Visual Information Specialist coordinated work on over 1,300 slides, prints, and other artwork with one contractor, and was influential in setting up a contract with another company, whereby DRG staff can directly generate slides on a cost-effective basis.

ADMINISTRATIVE BRANCH

The Administrative Branch continued to provide the Division with administrative and financial management, including the budget and the Scientific Review and Evaluation Awards, property and supply control, and space planning and assignment; to maintain supplies of publications and application forms used in the PHS extramural programs; to be responsible for the efficient running of the components for effective coordination of procedures and services; and to maintain procedures for centralized distribution of application forms to the grantee institutions. The Branch also conducted or directed a number of studies involving several management activities, which may result in a reorganization with the application of new technology within the Division.

FINANCIAL MANAGEMENT SECTION

This Section assisted in administering about \$22 million for the Division's operations (of which \$17 million was from the NIH Management Fund and reimbursement agreements with other agencies) supplemented by \$5 million from the BIDs for the support of the Scientific Review and Evaluation Awards awarded to study section chairpersons. The Section monitored expenditures from these funds through a computer database system that also provides NIH management with monthly cost-analysis progress reports. Consultant costs were again paid almost entirely from the Scientific Review and Evaluation Awards, with consequent savings in both time and effort. The Section continued to report approximately 9,000 individual payments made to 3,800 consultants who submitted 7,700 vouchers to the NIH-wide computer-based system for reporting consultants' incomes. In addition to the audit of the 7,700 consultants' vouchers, about 500 vouchers were audited by this Section for Division employees and others.

A major change involved the Scientific Review and Evaluation Awards. All the DRG accounts are now managed by one financial institution, the NIH Federal Credit Union. This will allow greater control of records, expedite payments to the accounts, and release the chairpersons from some of the administrative burden of managing the accounts.

The Section prepared the Preliminary Estimate to HHS, the OMB Submission, and the Manpower Submission for the Fiscal Year 1983 President's Budget, and also furnished information for the Fiscal Year 1983 Mid-Year Review. Work has been started on the Fiscal Year 1985 Forward Plan. The Section continues to monitor the orderly flow of obligations and other aspects of budget execution as well as to respond to requests from the Division of Financial Management.

OFFICE SERVICES SECTION

This Section continued to review and approve requests for supplies and equipment needed by the Division, to provide property and supply control, and to participate in space planning and assignment. The Section accomplished a number of physical moves and planned several others, including the accommodation of the needs of new study sections and the installation of additional IBM Displaywriters and laser printers, which is the second phase of upgrading the quality of study section paperflow in the Referral and Review Branch. The Section has also maintained the Division's mail room, and has been responsible for wide distribution of PHS and NIH extramural forms and publications. The Section continued to maintain liaison with other NIH service components for effective coordination of procedures and services, and to be responsible for supplying the control offices of the grantee institutions with application kits.

The Branch has continued its efforts to convert all program application kits to a self-contained booklet format. As has previously been indicated, this reformatting has not only improved the appearance of the application kits, but has facilitated their processing by DRG staff, their distribution to applicants, and the completion of the forms by applicants. To date four application kits have been converted: the PHS-398, PHS-416-1, PHS-416-9 and PHS-2590 kits. The institutional training grant application forms are currently being revised.

The number of grant application kits assembled and handled averaged around 10,000 a month, and about 9,500 miscellaneous packages were mailed each month. The Mail Unit received and processed approximately 35,000 grant applications of all types, as well as a large volume of supporting documents, letters, and publications.

Extensive technical contributions were made by staff in the development of several new and revised forms.

Reference materials continue to be decentralized into two basic locations, one housing subject reference texts and the other major reference books such as Index Medicus and American Men and Women of Science. The Reference Committee continues to ensure the adequate provision of appropriate medical reference materials, and the Section remains extremely active in support of this activity.

REFERRAL AND REVIEW BRANCH

On July 8, 1983, the Division was reorganized. Under this reorganization, which was approved by the Director of NIH, the Scientific Review Branch, Referral Branch, and Office of Research Manpower were consolidated into the Referral and Review Branch. The Office of Research Manpower was transferred to the Branch's Manpower Review Section. In a second change, the Committee Management function was transferred from the Scientific Review Branch to the immediate Office of the Director.

REFERRAL ACTIVITIES

The Referral and Review Branch is responsible for receiving and processing grant applications submitted to the PHS as well as for assigning such applications to an initial review group for scientific merit review and to an awarding organization for second level review and possible funding.

The Branch processed and assigned to the PHS 25,407 applications (Table I), which is an increase of 8 percent from that of Fiscal Year 1982. Approximately 85 percent of this total was assigned to awarding units of NIH. Most of the increase reflects applications submitted for the May National Advisory Council and Board rounds. The historical workload profile is presented in Figure 1. In addition, the Branch will have processed 19,956 non-competitive applications, 17 percent above that of last year.

Despite the increasing workload, staffing for the processing of applications has remained relatively constant for the past 10 years. This has been possible only by introducing major modifications in the handling of applications and by taking advantage of newer technologies. During the past year, additional computer terminals have been provided to enable direct access into the data system. Ultimately, this will substitute for two systems now in use: a central card file reflecting each application processed, and a multipage form for typing and distribution of changes made in the data bank for each application. Planned are additional computer terminals to eliminate the time-consuming use of microfiche equipment for providing critical information essential for the assignment of applications. Past changes have made it possible not only to handle increasing workloads but also to provide more timely and effective communication channels.

The most recent change is a good example of developing more timely and effective communication. Effective for the June-July receipt date (Jan. '84 Council round), the computer terminals and printers were used to provide assignment labels, which were attached to investigator cards for notification to investigators of their assignments. These cards were forwarded to each investigator immediately upon assignment. Previously, such cards were forwarded to the office of the initial review group for addressing and forwarding to investigators. Delays in handling at this point were inevitable because

TABLE I

APPLICATIONS PROCESSED BY THE REFERRAL BRANCH IN FISCAL YEAR 1983

Council	May 1983	October 1983	January 1984
Receipt Date	Oct-Nov 1982	Feb-March 1983	Jun-July 1983 *
		<u>COMPETING</u>	
Number of Applications	New	7651	6489
	Renewal	2310	1684
	Supplement	<u>129</u>	<u>144</u>
	TOTAL	10090	<u>8317</u>
Activities	R	7773	6579
	T	269	112
	F	1077	851
	K	226	205
	Other	745	570
Distribution (percent)	NIH	86.4	84.9
	ADAMHA	9.4	12.6
	Other	4.1	2.5
		<u>NON-COMPETING **</u>	
Type 5	5982	7735	5107
Interim (administrative)	<u>317</u>	<u>365</u>	<u>450</u> ***
	TOTAL 6299	8100	5557

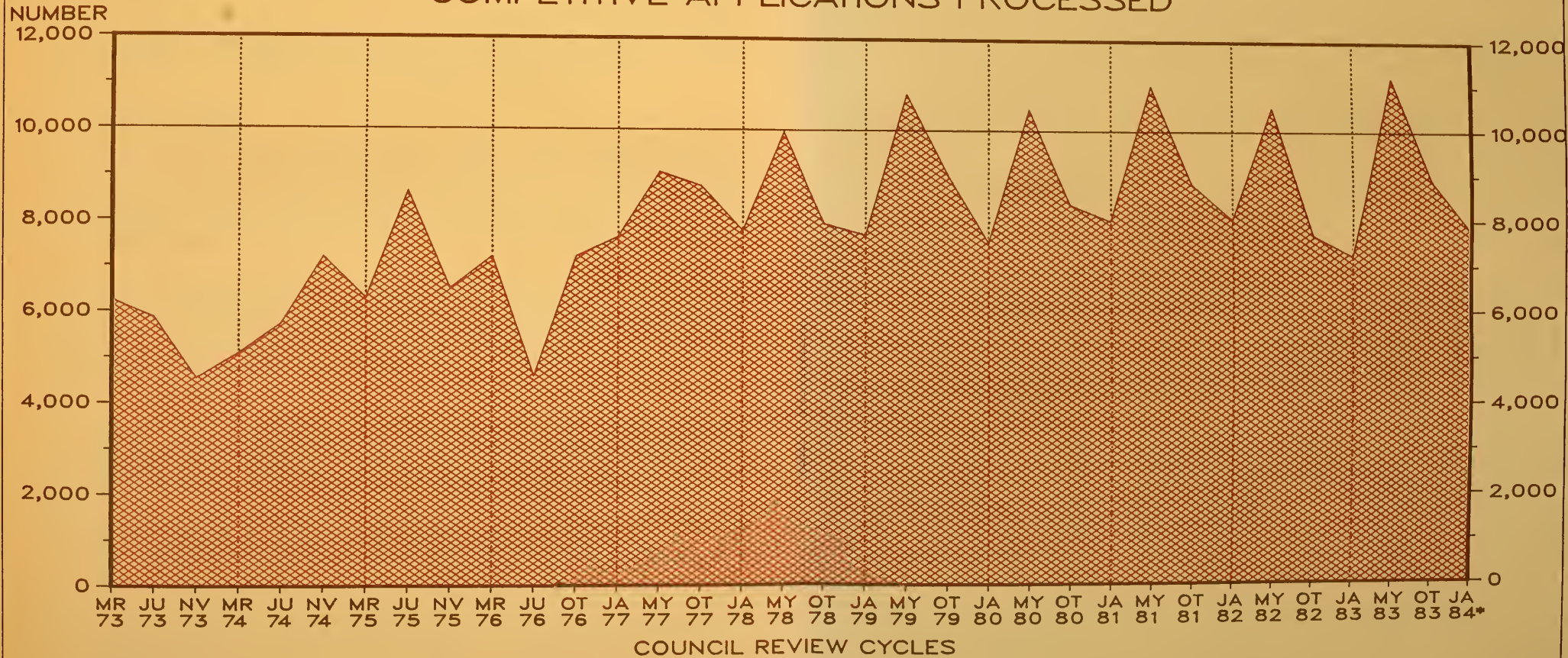
* Estimated numbers since report prepared prior to end of FY year.

** Non-competing applications are received each month. Figures for Type 5 applications reflect the interval from one Council round to the next.

*** Figures reflect activity through July only.



REFERRAL AND REVIEW BRANCH COMPETITIVE APPLICATIONS PROCESSED



INCLUDES WITHDRAWALS PRIOR TO REVIEW. DEFERRALS ARE COUNTED TWICE.
 JUNE 76 SPECIAL COUNCIL. MAY 77 INCLUDES AUG 77 SPECIAL COUNCIL. OCT 83 INCLUDES AUG 83 SPECIAL COUNCIL. *PRELIMINARY.
 SOURCE: NIH/DRG/SAB (IRG HISTORY TAPES)

the entire resources of the initial review group office were directed to meeting the pending Council and the referral activity was directed to the next Council. The change in timing of receipt of these cards by investigators has reduced by more than 50 percent the large numbers of telephone calls received formerly by Referral staff in regard to assignments. In addition, earlier communication from investigators expressing concerns over assignments has permitted Referral staff and Executive Secretaries to be more responsive to such concerns.

Referral staff representatives are on the NIH Women's Advisory Committee (Ms. Vernita Dawkins) and the NIH Handicapped Committee (Ms. Marcia Farahpour). A continued training program has been maintained for clerical staff to provide opportunities for improvement and promotions.

REVIEW ACTIVITIES

Through its initial review groups, generally called study sections, the Referral and Review Branch provides the scientific merit review of most grant applications to the NIH. In Fiscal Year 1983, the Branch faced another year of heavy workloads--18,881 competing applications to be reviewed. Despite this burden as well as various manpower and space constraints, the Branch managed this workload while maintaining the quality of peer review by the study sections.

As part of its efforts to manage the workload, the Branch was able to receive a charter for one new study section, the Hearing Research Study Section, and two others were enlarged into flexible study sections--General Medicine A and Cellular Biology and Physiology (formerly Cell Biology). The Communicative Sciences Study Section also changed its name to the Sensory Disorders and Language Study Section so as to reflect more accurately its review responsibilities.

Instructional materials for consultants and staff were revised and updated. Most noteworthy was the completion and distribution of the Handbook for Executive Secretaries. In addition, the booklet used with the Branch's extensive slide collection on peer review was updated, and the Handbook for Grants Assistants is in the process of being extensively revised.

The Branch's word processing capabilities continued to be expanded, with 74 IBM Displaywriters now in place, 16 of which are equipped with modems to allow the word processors to interact with the NIH computer systems. Staff were trained in how to use these word processors and the Division's other computer capabilities.

As in previous years, the Branch took a lead role in preparing for the meetings between the Chairpersons of the NIH scientific review groups and key representatives of the NIH administration. Preliminary plans have been completed, and the meetings are scheduled to take place towards the end of the calendar year.

Staff evaluation procedures continued to involve considerable time and effort on the part of all personnel. During the fiscal year, the merit pay plan was evaluated by a committee, and was then successfully implemented with minor modifications.

During this fiscal year, the Branch actively participated in the SBIR Program. Staff assisted in preparing the SBIR solicitation document and a special SBIR application kit. In addition, in July and August of 1983, the Executive Secretaries and Grants Assistants of several study sections held an extra round of special review meetings to review approximately 625 SBIR applications to the NIH so that awards could be made during Fiscal Year 1983.

- Office of Research Manpower

The Office of Research Manpower continued its involvement in the development and distribution of training program applications, policy brochures, and related material through: (1) announcement and distribution of the new Individual Fellowship application forms; (2) distribution of the Activation/Stipend Increase policy change flier; (3) aide in the Office of Management and Budget (OMB) clearance of the institutional training grant forms (PHS 6025). Subsequently, a policy change (nonitemization of above-the-line institutional costs) required further revision and clearance. The form is now at the printers and should be in use early next year; (4) revision and distribution of the information statements on Individual Postdoctoral and Senior Fellowships. A revision of the regular institutional grant (T32) information statement was drafted and is now being reviewed by the individual awarding components; and (5) revision of supplemental application instructions for the Research Career Development Award, which were developed and submitted for clearance to OMB.

The Office also served in a staff capacity to the Assistant Chief for Manpower Review, DRG, to improve the quality of fellowship review and improve the communication between the BIDs and study sections. Such activities included: administratively reviewing fellowship summary statements; coordinating staff attendance at BID secondary review meetings and notifying BIDs of study section meetings; revising review material such as the reviewers' guides and animal welfare fliers; and attending study section review meetings.

During this past fiscal year, the Office assisted the Office of the Director, Extramural Research and Training, NIH, in the development of the following training policy and procedures: the nonitemization of institutional costs on the training grant applications (announced in the NIH Guide on July 15, 1983); modifications to the short-term training program for health professional students (draft announcement under review); and an internal operating procedure for implementing the NRSA payback provision (draft NIH Manual nearly final).

The Office of Research Manpower continued to serve as a central information source on the NIH training program by responding to numerous calls and letters from applicants and NIH staff. The Office coordinated the development of the FY 82 Training Program Statistics requested by the National Academy of Sciences in preparation of its shortage area report; assisted in the preparation of the Fellowship Annual Reports for fiscal year 1981 and 1982; and is working on a updated report on the success of MD applicants.

- Workshops or Symposiums Sponsored by Study Sections

In conjunction with its regular fall meeting, the Chemical Pathology Study Section held a workshop on "Free Radicals in Promotion." The workshop, held on October 22, 1982, was supported by the National Cancer Institute. Four experts in free radical chemistry and six in the promotion phase of chemical carcinogenesis joined the Study Section for both the seminar and round table discussions. About 30 observers were present. A preliminary report of the workshop was published (*Science* 219:158-159, 1983), and the workshop report is currently in press in *Cancer Research*. The workshop report is dedicated to its chairman, Dr. John D. Scribner, who was killed in a mountain climbing accident in April 1983.

Both subcommittees of the Epidemiology and Disease Control Study Section participated in a workshop on "Nutritional Epidemiology" on October 20, 1982. Discussion focused on four topics: "Nutrient Data Bases," "Sources of Variability in Dietary Intake," "Cohort Studies as Dietary Data Resources," and "Nutrition and Health Status Indicators in Developing Countries."

On June 8, 1983, the evening before the June meetings of the Genetics and Mammalian Genetics Study Sections, a joint workshop with invited speakers was held. The topics dealt with an assessment of the progress and identification of future directions in population genetics research. The speakers were: Dr. Cavalli-Sforza, Stanford University, who spoke on "Human Population Genetics and the State of the Art and Importance for Health and Disease"; Dr. Hampton Carson, University of Hawaii, who spoke on the "Genetics of Natural Populations in Relations to Ecology"; and Dr. Daniel Hartl, Washington University, who spoke on "Theoretical and Experimental Population Genetics, A Contemporary View." The workshop was supported by the National Institute of General Medical Sciences (NIGMS) and jointly sponsored with DRG. Besides the members from both study sections, a number of BID program persons, especially from NIGMS, attended the workshop.

In conjunction with its June 1983 meeting, the Pathobiochemistry Study Section sponsored a workshop on the recent developments in the field of proteoglycan biochemistry. At the workshop, which was held in San Francisco, California on June 10, 1983, 11 speakers presented scientific papers, followed by extensive discussion. Approximately 45 scientists attended, including some in attendance at the annual meeting of the American Society of Biological Chemists. Papers presented at the workshop are being published in the 1983 *Federation Proceedings*.

The Physical Biochemistry Study Section, in conjunction with its October 1982 meeting, held a day-long workshop on "Ion Translocating ATPases." Invited speakers were Drs. R. Simoni (Stanford University), G. Guidotti (Harvard University), G. Inesi (University of Maryland Medical School), D. MacLennan (University of Toronto), P. Pedersen (Johns Hopkins University), H. Penefsky (Public Health Research Institute of the City of New York), J. Penniston (Mayo Medical School), and C. Slayman (Yale University). A summary of the workshop was published in booklet form by DRG.

● Professional Activities by Study Section Staff

During the past year, Dr. Michael Alavanja, Executive Secretary, Epidemiology and Disease Study Section, lectured on the use of "Epidemiology in Quantitative Risk Assessment" in conjunction with a course entitled "Quantitative Risk Assessment" sponsored by the NIH Graduate School. He reviewed eight contract proposals dealing with the hygiene monitoring of formaldehyde in various industrial environments for the National Cancer Institute. He is also currently conducting an epidemiological study to assess the effect of pesticide exposure on grain millers for the National Cancer Institute. Dr. Alavanja also peer reviewed one manuscript dealing with environmental epidemiology for the Journal of Environmental Health.

Dr. Orvil E. A. Bolduan, Executive Secretary, Visual Sciences Study Section, received an Honor Recognition Award from the Association for Research in Vision and Ophthalmology at its Annual National Meeting in Sarasota, Florida, May 1983. This award was presented to Dr. Bolduan in recognition of his many outstanding years of service and dedication to the Vision Research Community.

Ms. Christine Chen, Grants Technical Assistant, Gastroenterology and Clinical Nutrition Review Group, completed a course entitled "Contracts and Grants Administration" from the American University, May 1983.

From February 7 to 11, 1983, Dr. Edmund S. Copeland, Executive Secretary of the Chemical Pathology Study Section, attended the Gordon Research Conference on the Role of Oxygen Radicals in Biology, where he gave an informal presentation on free radicals in promotion. During the past fiscal year, he has also continued his activities as Co-chairman of the Greater Washington Area ESR Discussion Group and as Visiting Scientist in the Clinical Neuropharmacology Branch, National Institute of Mental Health.

Dr. Donna J. Dean, Executive Secretary, Gastroenterology and Clinical Nutrition Review Group, spoke on "The NIH Grant Application Review and Award Process--the Initial Review Group Perspective" at a workshop on "Research Advances and Opportunities in Gastrointestinal Endoscopy," which was co-sponsored by the American Society for Gastrointestinal Endoscopy and the Digestive Diseases Interagency Coordinating Committee in Bethesda, Md., on April 1, 1983. Dr. Dean participated as a DRG representative in a workshop on "The Application of Chronobiologic Techniques to Basic and Clinical Research in Digestive Diseases," sponsored by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases (NIADDK) on March 30, 1983 in Bethesda, Md. Along with Review Group members and NIADDK staff, she planned and coordinated an "Advisory Workshop on Opportunities in Anorectal Research" held at NIH on June 13, 1983. Dr. Dean attended the Federation of American Societies for Experimental Biology meeting in Chicago, Illinois, April 15 to 19, and participated in staffing the NIH booth and answering questions from investigators on peer review at the NIH and on policies and procedures for submitting grant applications. She also represented DRG at the annual meetings of the American Gastroenterological Association (May 23 to 25, 1983) and the American Federation for Clinical Research (April 29 to May 2, 1983) in

Washington, D.C. Other activities by Dr. Dean include being an advisor to the Montgomery County Schools on science fair projects and the orientation for the annual Montgomery Area Science Fair; and serving as a resource person and an advisor to the Education Division of the American Chemical Society on educational materials in chemistry and biochemistry intended for distribution to high school and undergraduate students.

Dr. Dharam S. Dhindsa, Executive Secretary, Reproductive Biology Study Section, was invited to chair a session for the "International Symposium on Hormone Receptors in Growth and Reproduction," which was held in Bombay, India, November 18 to 21, 1982, and he also attended four workshops dealing with fertility and infertility. Following this symposium, Dr. Dhindsa made presentations and shared information in the field of reproduction, both for humans and animals, with scientists at the following organizations: Center for Reproductive Sciences at Pearly, Bombay; All India Institute of Medical Sciences, New Delhi; U.S. Embassy, New Delhi; Punjab Agricultural University, Ludhiana, Punjab; Postgraduate Institute of Medical Education and Research, Chandigarh, Punjab; Department of Animal Husbandry and Veterinary Science, Chandigarh, Punjab; Indian Council of Agricultural Research, New Delhi; and Indian Ministry of Health and Family Welfare, New Delhi. At the annual meeting of the International Society for Embryo Transfer, at Fort Collins, Colorado, January 1983, Dr. Dhindsa presented a seminar on the "National Institutes of Health Peer Review Process." Dr. Dhindsa was invited to give a seminar entitled "NIH Peer Review Process and Mechanisms of Funding" at Georgetown University, Washington, D.C., on April 21, 1983; and he spoke on "Peer Review Process at the NIH" at Vanderbilt University, Nashville, Tennessee, July 1983. Dr. Dhindsa represented the NIH at the annual meeting for the Gynecologic Society, in Washington, D.C., March 1983, at the Endocrine Society, June 1983, in San Antonio, Texas, and at the Society for the Study of Reproduction, in Cleveland, Ohio, August 1983. During the past fiscal year, Dr. Dhindsa reviewed four manuscripts for the International Goat and Sheep Research Journal. Dr. Dhindsa was also given a letter of commendation by the Director of DRG for organizing an outstanding workshop on "The Role of Peptides and Protein in the Control of Reproduction," held in February 1982.

During the past fiscal year, Dr. Ronald J. Dubois, Executive Secretary, Medicinal Chemistry Study Section, was a member of an ad hoc task force to monitor the Journal of Medicinal Chemistry.

Dr. Martin Frank, Executive Secretary, Physiology Study Section, presented a seminar entitled "The Peer Review Process," as part of a Sigma Xi sponsored workshop on "Funding for Research: Public and Private Sources," to the Jefferson Medical College, Philadelphia, Pennsylvania, on November 17, 1982. On November 22, 1982, he gave a "Workshop on the NIH Peer Review Process" sponsored by the Department of Pharmacology and Office of Research and Sponsored Programs, Northwestern University Medical School, Chicago, Illinois. Dr. Frank also presented a Peer Review Seminar to NIADDK Staff Fellows in the Clinical Center, NIH, Bethesda, Maryland, on February 18, 1983. During the past fiscal year, Dr. Frank was Associate Professorial Lecturer, Department of Physiology, at the George Washington University School

of Medicine; a member of the Research Committee, American Heart Association, Nation's Capital Affiliate; a member of the NIH Office of Extramural Research and Training Staff Training in Extramural Programs (STEP) Committee; and a member of the Gaithersburg City Planning Commission. Dr. Frank also completed a Professional Development Program, designed to provide him with semi-formal experiences in other areas of NIH administration; during the Program, he worked with Dr. George T. Brooks, NIADDK, Dr. Stephen L. Gordon, NIADDK, and Dr. Ruth L. Kirschstein, NIGMS.

On February 22-25, 1983, Dr. Clarice E. Gaylord, Executive Secretary, Pathobiochemistry Study Section, represented DRG at a PHS sponsored Grantsmanship Workshop, held at Bethune-Cookman College, Daytona Beach, Florida. At the workshop, she presented a seminar entitled "Effective Grantsmanship and a Review of Application Processing at NIH." She also managed a DRG booth at the annual Minority Biomedical Support Symposium, held at the Sheraton Hotel from April 7 to 10, in Washington, D.C. Dr. Gaylord was selected as a finalist of the DHHS Senior Executive Service Candidate Program and underwent two days of evaluation at the Career Assessment Center in Marriottsville, Maryland. She was also selected as a freshmen member of the NIH STEP Committee. In addition, Dr. Gaylord served as Chairperson of DRG's Employee Advisory Committee.

Dr. Gerald A. Greenhouse, Executive Secretary, Cell Biology Study Section, reviewed manuscripts for the Teratology Journal. He attended the Meeting of the American Society of Cell Biology, in Baltimore, Md., and helped to staff an NIH information booth. Dr. Greenhouse also attended the Gordon Conference on Fibronectin where he performed a similar service.

From August 12 to August 16, 1983, the "International Symposium on Retina: Clinical and Basic Aspects" was held in Taipei, Republic of China. This International Symposium was organized by the members of the Visual Disorders Study Section. Dr. Jane H. Hu, Executive Secretary, Visual Disorders Study Section, gave a speech on "International Biomedical Exchange and Scientific Progress of the Republic of China."

Dr. Asher A. Hyatt, Chief, Biomedical Sciences Review Section, participated as the NIH representative in a workshop on the SBIR Program, held at Case Western Reserve University in July 1983. During the year, he was Chairman of the Manual Chapter 4105 - "Grant Support of Scientific Meetings" - Revision Committee. He also served as the Review Branch representative on the committee to devise implementation procedures and a new coding system for applications involving human subjects. This is embodied in Manual Chapter 4107. Dr. Hyatt continued his service on the Office of Personnel Management's panel to rate potential Health Scientist Administrators and Grants Associates. He participated in training programs on "Quality Circle Concepts and Techniques," "Perspectives on Bioethical Decision Making," and "The Myers Briggs Psychological Type Inventory." During the year, he became treasurer of the D.C. Chapter of the Association of Humanistic Psychology.

Dr. Miriam F. Kelty, Chief, Behavioral and Neurosciences Review Section, served in a variety of governance positions in the American Psychological Association during 1982-3: (1) she was a member of the Committee on Women and Health and the Legislative Forum of the Division of Health Psychology; (2) as Past-President, she was a member of the Board of Directors of the Division of Psychologists in Public Service, as well as that Division's Recognition Awards Committee; (3) she chaired the Nominations and Elections Committee; and (4) she represented the Division on the Association's Council of Representatives. She is also an active member of the Division of Population and Environmental Psychology, the Division of Comparative and Physiological Psychology, and the Division of the Psychology of Women. Dr. Kelty is an invited member of the Washington Area Bioethics Seminar, an ongoing seminar of individuals from area academic institutions, Government agencies, Congressional committees, public interest groups, the religious community and the journalist community that meets monthly to discuss ethical issues in science and technology and their implications for society. She is also an invited participant in the Health Policy Forum, an ongoing series of seminars and workshops on health policy issues attended by Congressional staff and agency personnel. In addition, Dr. Kelty participated as a representative of the NIH in the PHS Initiative on Health and Behavior Committee.

Starting October, 1982, Dr. Kelty took a course on microcomputers, and during the year attended a variety of demonstrations and seminars in this area. On December 2 to 5, 1982, she was invited to the Clinical Research Center Program Directors Conference in Scottsdale, Arizona, where she spoke on the "Promotion of Human Investigation." On January 19, 1983, Dr. Kelty presented a workshop for faculty and staff of Montgomery College on "Health Care in the Future." Through the year, she also served as a panelist for an iterative study, "Health Prospects 1983-2003," for the Policy Research Institute and Project Hope Center for Health Information. On April 11, 1983, as an American Psychological Association Representative, she participated in the national invitational symposium entitled "Public Policies Affecting Chronically Ill Children and Their Families," held by Vanderbilt University and the Institute of Medicine in Washington, D.C. In May 1983, she served on a parent-faculty public school advisory committee on Family Life Education. On May 17, 1983, she was invited to speak on the "NIH Grants Assignment and Review Process" to the Forum on Research Management of the Federation of Behavioral, Psychological and Cognitive Sciences, an interdisciplinary group of university and government scientists interested or involved in psychological and other behavioral research policy and support. On May 30, 1983, Dr. Kelty was elected a Fellow of the American Association of the Advancement of Science for "...contributions to research policy and organizational work on behalf of science, following excellent laboratory work on hormones and behavior." On June 10, 1983, Dr. Kelty participated in a Department executive development course, "Social Programs: Costs Incurred vs. Benefits Incurred," which explored the trend toward social regulation and some implications of social regulatory programs. On July 22-27, 1983, she attended the 1983 World Congress for Mental Health. Dr. Kelty is a consulting editor of Health Psychology and has just been invited to serve on the editorial board of Women and Health. She is a frequent reviewer for a number of journals in her field.

On May 3, 1983, Dr. Jeanne N. Ketley, Executive Secretary, Physical Biochemistry Study Section, was a discussion leader for a workshop sponsored by NIGMS entitled "Extramural Programs and Grant Support." This workshop was for the benefit of intramural staff leaving NIH. During this fiscal year, Dr. Ketley also chaired the DRG Executive Secretary Merit Pay Committee.

At the 1983 biennial meeting of the Society for Research in Child Development, Dr. Teresa E. Levitin, Executive Secretary, Human Development and Aging Study Section, organized and chaired a session entitled "Federal Funding of Research on Children and Adolescents: Priorities and Processes." For that session she presented a paper on the peer review process of the Public Health Service. At the 1983 annual convention of the American Psychological Association, Dr. Levitin was the discussant for a session entitled "Individual and Couple Satisfaction During Family Formation: A Longitudinal Study" and presented a poster session entitled "After Suicide: The Psychological Rehabilitation of Family and Friends." She is the co-chair of the Society for the Advancement of Social Psychology, and on the Editorial Review Board of both the Journal of Social Issues and the Journal of Family Issues. Dr. Levitin participated in a three day course on "Committee Dynamics," January 26 to 28, 1983, sponsored by the Executive and Management Development Branch, NIH; and also participated in the development and organization of a National Institute of Child Health and Human Development conference on research on families of retarded persons, September 1983.

Dr. Rosemary S. Morris, Executive Secretary, Cardiovascular and Renal Study Section, was a member of the Nominating Committee for the Lederle Award sponsored by the American Institute of Nutrition.

During the past fiscal year, Dr. Betty June Myers, Executive Secretary, Tropical Medicine and Parasitology Study Section, was Associate Editor of the American Society of Parasitologists Newsletter; a member of the Nominating Committee, Nomenclature and Terminology Committee, and Special Awards Committee of the American Society of Parasitologists; a member of the Membership Committee of the American Society of Tropical Medicine and Parasitology; a member of the NIH Office Technology Task Force (Information Resource Sharing Panel); and a member of the Civil Service Health Scientist Administrator Rating Panel.

Dr. Antonia C. Novello, Executive Secretary, General Medicine B Study Section, was awarded a Legislative Fellowship, under which she spent one day a week for the year at the Senate working for the Labor and Human Resources Committee. Other awards included the MSPHS Commendation Medal, on February 22, 1983, for "a distinguished career exemplified by initiative, leadership and sensitivity hallmarked by outstanding contributions to the National Institutes of Health and the scientific community"; and the American Medical Association Physicians' Recognition Award, in March 1983, for medical education activities. In addition, as of September 1982, Dr. Novello became Clinical Associate Professor of Pediatrics, Department of Pediatrics,

Georgetown University Hospital. Under this appointment she taught a monthly seminar for medical students on "Advancements in Nephrology." During this past fiscal year, she was appointed a member of the NIH Coordinating Committee for Chronic Renal Disease. Dr. Novello's other activities included: on January 1983, serving as a referee in the evaluation of scientific manuscripts submitted to the American Society for Artificial Internal Organs; presenting a paper on "Adolescent Sexuality" at the Sixth Pan American Conference on Adolescent Psychiatry, in Mexico City, February 1983; presenting a paper on "The Physiology of Puberty and a Medical Update" as part of a Short Course in Adolescent Psychiatry, Washington, D.C., April 1983; representing DRG at the First International Congress of Cyclosporine, Houston, Texas, May 1983; preparing, coordinating, and staffing Hearings on the Smoking Prevention and Education Bill S772 for the Senate Committee on Labor and Human Resources, May 5 and May 12; giving a symposium, sponsored by the DRG Employee Advisory Committee, on May 25 and June 8, 1983, about "Women's Health Issues of the 80's"; and presenting a paper on the "Status of Pediatric Nephrology Applications" at the International meeting of the Society for Pediatric Nephrology, Hanover, Germany, August 29 to September 2, 1983.

From April 11 to 15, 1983, Dr. Richard A. Peabody, Executive Secretary, Experimental Cardiovascular Sciences Study Section, attended the annual meeting of the Federation of American Societies for Experimental Biology and Medicine, in Chicago, Illinois, at which he helped to staff the NIH booth and answer questions from investigators regarding peer review at the NIH as well as policies and procedures for submitting grant applications.

Dr. Samuel C. Rawlings, Executive Secretary, Human Development and Aging Study Section, spoke at the University of Arizona, on October 19, 1982, to the Health Science Center Faculty. The talk, which was entitled "The Proposal Review Process in Federally Supported Research," was co-sponsored by the University's Committee on Gerontology and the Committee on Geriatrics of the College of Medicine.

During the 1983 fiscal year, Dr. Ann Schluederberg, Executive Secretary, Epidemiology and Disease Control Study Section, served on the Scholars' Advisory Board of the Fogarty International Center and as a reviewer for the Journal of Infectious Diseases.

Ms. Ileen E. Stewart, Executive Secretary, Orthopedics and Musculoskeletal Study Section, was invited to make a presentation to the Research Committee of the American Academy of Orthopedic Surgeons at its February Anaheim meeting. She presented data on the Study Section's changing review pattern and discussed ways to increase research participation in orthopedics. At the same time, she attended the paper sessions of the Orthopedic Research Society and was an invited guest at the Kappa Delta Award dinner.

During fiscal year 1983, Dr. Thomas M. Tarpley, Executive Secretary, Oral Biology and Medicine Study Section, was awarded the PHS Outstanding Unit Citation, was appointed a Fellow, International College of Dentists, was listed in the 1983 edition of Who's Who in Frontier Science and Technology, and was the Toastmaster at a retirement ceremony. Dr. Tarpley presented these

lectures or seminars: (1) as Ethical, Legal and Social Issues in Medicine Facilitator, "The Patient Who Wishes to Die," Uniformed Services University of the Health Sciences, School of Medicine, September 28, 1982; (2) "Swelling of Salivary Glands," National Naval Dental Center Continuing Education Course in Oral Pathology, Bethesda, Maryland, January 18, 1983; (3) "Current Problems in Evaluating Dentally Related Research in the Academic Environment," NIH, February 21, 1983; (4) "The Role of Study Sections in a Changing Monetary Scene," National Institute of Dental Research, Forsyth Dental Center, March 2, 1983; (5) "Diseases of the Salivary Glands," Continuing Education Course, 30th Annual Course in Oral Pathology, Armed Forces Institute of Pathology, March 15, 1983; (6) "Xerostomia in the Medically Compromised Patient," Oral Medicine Course, U.S. Army Institute of Dental Research, April 13, 1983; and (7) "Lumps, Bumps, and Dryness - Xerostomia, Drugs, Tumors," Clinical Center, NIH Dental Department, May 18, 1983.

Dr. Adolphus Toliver, Executive Secretary, Biochemistry Study Section, was appointed to the NIH Extramural Associates Advisory Board (1983 to 1986), and was reappointed to the American Society of Biological Chemists' Committee on Equal Opportunities for Minorities (1983). On September 14, 1982, Dr. Toliver presented a seminar on "Your Grant Application and Its Review: A Study Section Perspective" for the Department of Biochemistry, University of Minnesota School of Medicine. On March 23, 1983, he was a judge for the Students Science Forum, Florida A&M University, Tallahassee, Florida. These were formal presentations of students' research projects that were supported by a Minority Biomedical Research Support grant to that university. On March 24, 1983, at Florida A&M University, Dr. Toliver gave a lecture, sponsored by the College of Pharmacy and Pharmaceutical Sciences, entitled "An Overview on the Use of Recombinant DNA Techniques as a Tool in Biomedical Research." At the same place and on the same date, he presented a seminar on "Your NIH Grant Application: What It Takes to Get Into the Mainstream." On May 18, 1983, Dr. Toliver spoke on "Your NIH Grant Application, From its Mailing through its Review" for the Department of Biological Sciences, University of Pittsburgh.

Dr. Catharine L. Wingate, Executive Secretary, Diagnostic Radiology Study Section, attended the annual meeting of the Society for Nuclear Magnetic Resonance Imaging, February 14 to 18, 1983, in Colorado Spings, Colorado. She also served as Review Editor of Medical Physics, the journal of the American Association of Physicists in Medicine, and attended its annual meeting in New York, August 1 to 3, 1983.

- Publications by Study Section Staff

Copeland, E.S. (Ed.): "Free Radicals in Promotion: A Chemical Pathology Study Section Workshop." Cancer Res., IN PRESS.

Copeland, E.S., Campbell, I.C., and Murphy, D.L.: "Cytosolic Monoamine Oxidase - Spin Labeled Amphetamine Interactions: Modifications by Clorgyline and Pargyline. An Electron Spin Resonance Study." Biochem. Biophys. Acta 743: 186-194, 1983.

Gelfand, M.C., Novello, A.C., and Winchester, J.F.: "Extracorporeal Techniques in the Treatment of Intoxications." Progress in Clinical Kidney Disease and Hypertension, Vol. II, McDonald, F. (Ed.), Thieme Stratton Publishers, New York 1983, IN PRESS.

Klayman, D.L. and Copeland, E.S.: "Radioprotective Agents." Kirk Otheimer Encyclopedia of Chemistry Technology, Vol. 19, John Wiley, New York 1982, 801-832.

Levitin, T.E.: "An Overview of Research on the Effects of Divorce on Children: Problems, Questions and Perspectives." The Psychiatric Hospital, IN PRESS.

Murphy, D.G. and Dean, D.J.: "The National Institutes of Health Grant Support Mechanisms for Research Involving Endoscopic Procedures in Digestive Diseases Research." Gastrointestinal Endoscopy, IN PRESS.

Papadopoulou, F.L., Novello, A.C., and Calcagno, P.L.: "Hemocarboxperfusion in Children." End Stage Renal Disease in Children, Fine, R. and Gruskin, A. (Eds.), W.B. Saunders Company, Publishers, Philadelphia 1983, IN PRESS.

Sweet, J.B., Callihan, M.D., Schaefer, E.J., and Tarpley, T.M.: "Tangier Disease with Oral Abnormalities," The International Journal of Oral Surgery, IN PRESS.

Tarpley, T.M.: "Reflections On a Refugee Center." Keeping You Informed: From the Desk of the Director, DRG, 2-4, September 1982.

Verch, R.L., Chu, R., Wallach, S., Peabody, R.A., Jain, R., and Hannan, E.: "Tissue Chromium in the Rat." Nutrition Reports International 27:531-540, 1983.

Yang, G.C. and Copeland, E.S. "Spin Immunoassay." Methods in Enzymology, Vol. 74, H. Van Vunakis (Ed.), Academic Press, New York, 1981, 140-151.

RESEARCH ANALYSIS AND EVALUATION BRANCH

The Research Analysis and Evaluation Branch continues to serve as a staff resource to DRG and the rest of the NIH community in the development and preparation of reports on selected biomedical fields, and to engage in various tasks or projects to aid in the administration of the NIH extramural programs. During the past fiscal year, the Branch initiated two new evaluation projects supported by NIH evaluation funds: the feasibility of developing more information about subproject investigators on large NIH research grants; and possible methodologies for studying field switching among NIH-supported principal investigators.

Statistical data on applicants, principal investigators, fiscal resources for research grants, and rates of entry of new investigators into NIH research grant programs, as well as trend data on major types of doctoral level degrees held by applicants and awardees have been developed for NIH by the Branch with the cooperation of Institute of Medicine and the Statistics and Analysis Branch of DRG. Slides of the data have been prepared and presented to the NIH Office of the Director staff by the DRG Director. In addition, the Branch Chief has made presentations on principal investigator trends to the Extramural Program Management Committee and to the NIH Office of Program Planning and Evaluation.

A methodology for automating the classification of research and development grants and contracts into the required categories of basic and applied research was adopted by NIADDK and used in the Fiscal Year 1982 report to the National Science Foundation. This method, which was developed in the Research Analysis and Evaluation Branch, also closely approximated the amounts of basic and applied research reported by several other BIDs. Improvements have been made recently with the intention of providing tools for standardizing the production of these reports while retaining a fair amount of flexibility.

During Fiscal Year 1983, Branch personnel developed estimates of NIH support in several different fields of science, such as molecular biology, neurological sciences, and behavioral sciences. The Branch also assisted the Office of Medical Applications of Research in the identification of the most likely population of grants and contracts that support clinical trials.

Branch assistance was provided to the NIH Acquired Immune Deficiency Syndrome (AIDS) Working Group by creating a special file of AIDS projects and related research for the purpose of supplying periodically updated information on the NIH support of research in this area. At the end of each month, the Branch issues a report showing the name of the performing organization, the amount awarded, the title of the project, and other information.

A presentation on data resources at NIH was made by the Chief to the National Science Foundation Subcommittee on Women in Science. A paper on "Phage Studies and the Origins of Molecular Biology, NIH Funding Aspects," was presented at the National Science Foundation Symposium on Federal Funding and the Growth of Knowledge. The Branch has assisted a group at NIH studying a similar topic.

The Chief serves on several NIH task groups and committees, including the Salary Support Work Group, Coordinating Committee on Research Animal Resources, Clinical Trials Committee, Prevention Committee, Coordinating Committee on Assessment and Transfer of Technology, Planning and Evaluation Officers' meetings, and Federal Interagency Chemistry Representatives.

Other Branch staff are represented on various NIH committees, including the Women's Advisory Committee, Grant Applicant, Trainee and Fellowship Files Technical Committee, and NIH Library Committee.

STATISTICS AND ANALYSIS BRANCH

The Statistics and Analysis Branch is involved in almost every facet of NIH's extramural activities. Through its IMPAC System (a central data system on extramural activities), the Branch performs services at virtually every stage of application processing, from initial receipt through the final award. Utilizing remote computer terminals and interactive software programs, the IMPAC System assists the Referral and Review Branch in the receipt and processing of grant applications, and provides the Branch with various documents, such as reviewers' voting sheets, the Resume of IRG Actions, and the application summary statement ("pink sheet") form. The System also assists the National Advisory Councils and awarding units by providing such documents as the Resume of Council Recommendations and the Notice of Award, and such services as the ability to release, electronically, accounting transactions to the NIH Central Accounting System.

While providing these services and documents, the Branch is at the same time developing a database on the extramural activities of the NIH. These data are used to support all levels of NIH management and to provide a source from which NIH can meet its reporting obligations.

The Branch also operates CRISP, a sophisticated computer disk storage and retrieval system. CRISP (Computer Retrieval of Information on Scientific Projects) maintains scientific information, under approximately 7,900 subject headings, on all PHS-supported research projects, by fiscal year, back to Fiscal Year 1971. CRISP generates annually the 2-volume Research Awards Index that lists the research projects supported by the PHS during a given fiscal year.

Through its two major information systems, IMPAC and CRISP, and other small systems, namely, the Committee Management System, the Trainee Appointment File, the NRSA Payback File, and the Institution Profile File, the Branch provides information services on extramural programs to all levels of management, other Government agencies, and the public at large.

During the past year, the Branch made significant progress in developing and implementing a data communication network utilizing remote terminals that were installed in various extramural offices of the NIH. The new network system will tie together the receipt and processing of applications in the DRG Referral and Review Branch, the preparation of voting sheets, pink sheets, and resumes for the DRG study sections, and the preparation of award statements and encumbering documents within the funding BIDs. It is expected that full implementation of the new integrated network system will not only result in significant manpower savings but also greatly improve the quality and timeliness of information recorded in the IMPAC system.

SYSTEMS AND DATA MANAGEMENT SECTION

- Random Access for Institutes and Divisions (RAID) System

The interactive Workload Report module of the RAID system has been expanded to provide Councils with workload information organized by BID initial review group, by type of grant application, or by activity code. The Workload File is maintained online for daily updating.

The Status Report module has been developed as an integral part of the RAID system. This interactive program allows the user to obtain the review status of the application or grant record by submitting the record identification number through terminal input. A request by name of the applicant will display all IMPAC file records related to that applicant. An additional option allows the user to limit data selection to a given fiscal year or BID.

- Interactive Awards and Obligations Procedures

The interactive TSO computer program, which allows for preparation of award statements with the awarding unit, has been expanded to include preparation of the Notice of Research Fellowship Award.

- Accounting Transaction Release System (ATRS)

As an integral part of the redesign of the data capture portion of the IMPAC system through the use of interactive processing techniques, a TSO program has been developed to provide the Division of Financial Management (DFM) with obligation data for grant awards, thus eventually eliminating any need for producing Approval Lists. Coincident with the preparation of a grant award, a record is established in the ATRS. BID staff may access this record at any time thereafter to insert the release date. All obligation data are collected daily for submission into the DFM Central Accounting System.

- Computation of Priority Scores

The pilot interactive module that was developed to record study section recommendations is now widely used and has been greatly expanded. With this system, the study sections have a standardized calculation of priority scores, as well as the capability to delete or insert entries on the vote sheet. Data are retained in the computer memory for the duration of the Council cycle. Budget requests and recommended direct costs are collected and can be corrected on-site for immediate transfer to the IMPAC system, thus assuring the integrity of the information. The system also supplies each study section with several statistical reports.

- DRG-DFM Link

The linkage between the DFM Central Accounting System and the DRG IMPAC System has been reprogrammed to facilitate reconciliation between the two systems. This new approach will save considerable time and effort at the end of the fiscal year in reconciling DRG budget reports and the DFM system's "13 Month" Report, which is furnished to the Department.

- Continuation Fellowship Applications

Programming has been developed and implemented to automatically generate face page information for continuation year records of individual National Research Service Awards (NRSAs). The NRSA competing application kit has also been assembled into a convenient booklet form. Instructions have been clarified and preparation of the form has been considerably alleviated.

- Human Subjects Codes

The human subjects code structure has been expanded to conform to a recent NIH policy decision. Additional categories have been added to allow for more accurate interpretation of human subject involvement. The system design provides current information as the application proceeds through the review and award process. Awards may not be issued until human subject involvement has been resolved to the satisfaction of the Office for Protection from Research Risks.

- Automated Logging System Printers

With the acquisition of Datasouth DS 180 matrix printers, the Interactive Logging System for the assignment of grant application numbers is operating with greater efficiency. The overall production time for printing the necessary labels has been reduced by more than 100 percent.

- RFA Data Added to IMPAC

The Requests for Grant Applications (RFA) number is now captured as part of the logging procedure. Recording this item within the IMPAC record allows for computer prepared reporting on the volume of responses.

- Staff Training

The Systems and Data Management Section has established a training program to enable study section staff to access the IMPAC system for pertinent information on applications and awards. Using RAID and QIC, the interactive systems developed by DRG, study section staff are quickly supplied with current information from the IMPAC record. They have also been trained to retrieve analytical reports such as record status, Council workload, snapshots, and applicable data selected from the CRISP and Committee Management Information Systems.

- Data Items Added to IMPAC for Contract Records

The following data items were added to the IMPAC data base during the past year:

Subcontracting Plan Indicator - Indication that an acceptable subcontracting plan has been submitted, when required.

Total Dollars, Subcontracting Plan - Portion of contract budget allotted for subcontracting.

Subcontracting Dollars, Small Business Goal - Portion of contract budget allotted for small business.

Subcontracting Dollars, Disadvantaged Business - Portion of contract budget allotted for disadvantaged business.

EEO Compliance Indicator - Indication of compliance with EEO requirements through use of the standard EEO checklist.

Small Business Contract Indicator - Indication of classification status of the contractor organization at time of initial award.

Number of Proposals Received - For all competitive awards, total response to the Request for Proposals.

- Committee Management

A special file that contains ADAMHA Committees and their members has been established within the Committee Management Information System. This file provides current information that is required in the grant application assignment process.

- NRSA Payback

A procedure has been designed within the NRSA Payback system to track those NRSA recipients who have received previous support under the National Health Service Corps (NHSC) scholarship program. This mechanism will provide NHSC administrative staff with current payback information on their scholarship recipients. Special reporting procedures have been established with NHSC on a quarterly basis. In addition, the NRSA recipient is notified of the service obligation to NHSC on the Annual Payback Activities Certification form.

- Computer Access to National Science Foundation (NSF) Information

A method to access the NSF Information file system via a Hazeltine 2000 terminal has been successfully tested. This link to the NSF history file through investigator name or social security number makes it possible to reveal overlap on pending proposals. The Hazeltine terminal is located in the Extramural Programs Office in NICMS.

- CRISP System

The QIC (Query via Interactive Communication) program, which provides on-line access to the Crisp database, has been enhanced. Users of the QIC CRISP now have available an on-line display of associated abstracts.

- SBIR Program

A Small Business Address file has been established. This file provides the DRG Office of Grants Inquiries with address labels, assuring rapid response to requests for information on the SBIR Program.

- Forms Information File

A Forms Control Data Base has been designed to supply the NIH Forms Clearance Officer with information on those NIH forms that require OMB clearance. Through an interactive program, DRG can provide OMB with statistical data showing such information as cost, response, OMB clearance and revision dates, and reporting hours.

- BID Automatic Data Collection

Individual on-line data sets have been established to provide the various BID grants management staff with the capability of on-site updating of certain items within IMPAC. These data sets are automatically collected daily. This technique moves the information expeditiously and accurately from the BID to IMPAC.

RESEARCH DOCUMENTATION SECTION

The Research Documentation Section maintains the CRISP system, which contains scientific data on research grants, contracts, and cooperative agreements supported by the PHS, as well as NIH and NIMH intramural research projects. A significant feature of CRISP is its capability of subdividing program projects, centers and other large projects into their individual research components, or subprojects, thereby providing more detailed information on these large grants. Through this system, the Section responds to requests for scientific information from Government administrators, scientists, and information personnel to evaluate research programs or specific scientific areas or to prepare reports. Similarly, the Section responds to inquiries from grantee and nongrant institutions, scientists, the news media, and other non-Government sources engaged in, concerned with, or reporting on medical research.

CRISP has the query capability of (1) providing, in several optional formats, information ranging from a straightforward listing of research pertaining to a single scientific subject term to a compendium of projects relating to any number of terms; (2) furnishing individual BIDs with tapes or hard copy of their projects by subject, project, subproject, title, or name of

investigator; and (3) generating institution and BID tapes or listings of projects with indexing terms (Scientific Profiles). CRISP also has the query capability of limiting subject searches or Scientific Profiles to certain program, activity, or Institution Profile File (IPF) codes.

- CRISP Services

During the past fiscal year, the Section responded directly to over 1,700 requests on a wide range of subjects (a 27 percent increase over 1982), provided Scientific Profile data for grantee institutions, furnished NIH-wide scientific data for appropriate institutes, and performed professional editing operations involving thousands of approved research grant and contract applications. In addition, the Section continued to play a significant role in providing material on various trans-NIH issues, and finalized procedures for serving as the major source of scientific information for two major data banks.

- On-Line Access

Direct access to CRISP is available to all BIDs through the CRISP Inquiry System (CIS) and QIC for CRISP to obtain information from their scientific subject, project narrative, and administrative files.

- NTIS

By arrangements with the National Technical Information Service (NTIS), on-line access to selected extramural data from the latest completed fiscal year files has recently become available to individuals or groups outside the NIH through subscription.

- Annual Publications

The Research Awards Index, a two-volume set containing information on PHS-supported research projects. Volume I is a scientific subject index with associated project numbers and titles. Volume II contains project identification data, a research contract identification section, and project principal investigator information. The Fiscal Year 1982 edition (NIH Publication No. 83-200) was printed in June.

The NIH-NIMH Intramural Research Index, composed of scientific information on individual intramural research projects. Similar in format to the Research Awards Index, the current volume, for Departmental use only, was distributed in April.

The Medical and Health Related Sciences Thesaurus, the vocabulary authority list of subject headings used by the Section staff in indexing research projects. Also for Departmental use only, the latest edition became available last December.

- Training Courses

At the April STEP Module on Information Systems for Extramural Staff, this Section, in conjunction with the Programming Unit of the Systems and Data Management Section and other NIH staff, presented a description of the CRISP system and provided a demonstration of the uses of "QIC for CRISP." In addition, an intensive instructional course and laboratory session covering the content and use of CRISP were given during the fiscal year.

- New Initiatives and Improvements

NTIS System. In the spring of 1973, the Research Documentation and Systems and Data Management Sections completed development, programming and testing of a new system for providing NTIS with extracts of extramural data from CRISP on specially formatted tapes. Now fully operational, the system has already transmitted data for Fiscal Year 1982. Efforts are also underway for adapting this new system to other applications, including its utilization as the medium for providing CRISP data to TOXLINE and to the International Cancer Research Data Bank. Initial findings indicate that the new procedure is superior to existing methods.

Project Narrative File. For improved ease of access, the CRISP narrative file has been converted to indexed sequential organization. In addition, a new program has been implemented to verify project numbers on data-sets to be entered into this file, thereby virtually eliminating errors. Still other refinements now allow access to the narrative file through QIC for CRISP. Results to date demonstrate all of the modifications to be useful and effective.

CRISP Inquiry System. Several new Crisp Inquiry System format and query options have been developed and are now available, thereby providing increased flexibility, variety, and ease of access to CRISP data. Included among the innovations are programs for sorting and displaying abridged format data by initial review group or research institution, and a program for accessing information in any format by program class. Demand for these new capabilities is steadily increasing.

REPORTS, ANALYSIS, AND PRESENTATIONS SECTION

The primary function of this Section is to satisfy the information requirements of the NIH and PHS centralized extramural activities. In fulfilling this function, the Section utilizes the IMPAC system as well as other data sources. Its responsibilities include the design, maintenance, and operation of computer reporting systems; training and technical assistance in data retrieval; planning and coordination of NIH responses to annual surveys covering Federal obligations for research and development; preparation of formal publications, such as listings of NIH grants and awards for the NIH Basic Data Book; statistical analyses to compile and present visual materials dealing with extramural trends or other topics; and the development and implementation of special evaluation projects. This Section also works

closely with the Systems and Data Management Section in maintaining and extending the IMPAC system, and has direct responsibility for establishing institution classifications and related computer files, as well as ensuring the accuracy of selected key items for publications or reports.

Approximately 38,000 computer jobs were entered by the Section during Fiscal Year 1983, primarily in response to requests for information from NIH officials, other Government agencies, and nongovernment organizations. The Section utilized all data capabilities of the IMPAC system, compiled historical data, designed special reporting files, provided consultation services, and developed specifications to ensure that requesters' needs were met. In addition to hard-copy listings, the Section supplied magnetic tapes, which were used by requesters directly to answer questions, or which were entered into other management information systems.

- Special Projects

During the year, the Section, through a number of special projects and studies, developed actual data and projections for NIH budgets. These included the volume of research project applications reviewed, awards, paylines, award rates, distribution of awards by type of institution, average awards per principal investigator, and so forth. Reports were also prepared on estimated NIH commitments for fiscal years 1983 through 1987 in order to aid the NIH in determining future budget requirements and to ensure consistency and standard presentations of BID projections. Several models were constructed to facilitate analysis and evaluation of various policies for research project budgets from fiscal years 1985 to 1990. The Section also continued to develop, test, and evaluate alternative methods for obtaining budget data. For instance, an automated system was established to prepare estimates of noncompeting research projects, and support was given to an NIH work group seeking to improve these estimates. Also a project to study payline estimates was initiated.

The Section continued to monitor extramural data in IMPAC, DFM's Central Accounting System, and various BID systems to promote the credibility and efficiency of extramural reporting. The Section provided many reports on obligations and commitments from the accounting system and IMPAC to DFM for distribution to the BIDs. Data were added on trainee stipends committed. In response to feedback from the BIDs, considerable analysis of differences was performed, and corrective actions were taken to alleviate problems. For example, programs were designed to identify and create dummy records for procurement contracts paid from research and development contract budgets, according to the accounting system, but which were not present in the IMPAC system.

A study of differences between reporting concepts historically used by DRG for reporting award data versus those used for preparing NIH budgets, which was started in Fiscal Year 1981, continued this year. Formal recommendations regarding policy changes to promote greater consistency were presented to the Deputy Director for Extramural Research and Training, NIH, and the Director, DFM. Knowledge gained in this study was successfully applied in various reports and surveys that required strict consistency between IMPAC and budget totals; heretofore, such standards could not be met.

In response to the growing concern about priority scores, the Section prepared numerous reports and charts showing trends back to Fiscal Year 1965. Average priority scores were compiled for traditional research project applications reviewed by DRG study sections; the data were presented for each decile by study section, BID, and over-all totals within the type of grant. These data were revised and updated during the year based on groupings by fiscal year of study section meetings.

Trends in amendments to competing traditional research project applications since 1979 were analyzed, and the findings presented to the Extramural Program Management Committee and other audiences.

Data were requested and developed, and slides prepared, for several presentations to the Director's Advisory Committee. The Office of Extramural Research and Training, NIH, was provided with materials for presentations on NIH training activities and the impact of stabilization. A variety of data were also presented to the Director's Advisory Committee by the Director, DRG, on traditional research project grants, including, among other data, trends in direct costs by type of grant, comparisons of direct costs budgeted and expended, average costs awarded for direct and indirect costs, as well as average costs requested, recommended for approval, and awarded.

Proposals to limit multiple awards to an individual resulted in requests for information on Fiscal Year 1982 awards per principal investigator by institute and activity. The Section provided data showing investigators with multiple awards, and also identified each administering BID and the activities supported. Totals were compiled with and without subprojects, as recorded in the CRISP system.

The Section distributed the first of a series of studies analyzing selected institutional aspects of NIH extramural awards. Institutional Studies Report No. 1 describes the NIH Coding system for departments in universities and medical schools, and presents data based on this system for Fiscal Year 1982.

The Section developed a study on a matched (paired) basis to determine if approval renewal application scores show improvement or deterioration when compared to their award. Data included renewal applications approved in fiscal years 1962 to 1982. The study addressed such questions as the amount and direction of change related to the score of the original award, and whether renewal applications showing extensive deterioration continued to be funded.

In response to interest in the characteristics of NIH committee members, the Section is currently developing data that will provide 10 year trends for numerous characteristics, including age, sex, degree, field of doctorate, area of expertise, type or department of employing organization, position classification, and other criteria. Data will also be developed related to various aspects of each member's NIH grant history. A computer system will be able to monitor annual changes in these aspects of membership on an NIH summary basis or by initial review group.

With the assistance of the Section, 10 grantee institutions were selected, as a random sample, for site visits to their laboratory animal facilities in order to monitor compliance with NIH animal care guidelines. These institutions were not accredited by the American Association for Accreditation of Laboratory Animal Care, but had provided assurance that they were in compliance or progressing toward compliance with their guidelines. The random selection was designed to assure representation by PHS region and by level of NIH support.

- Recurring Reports and Publications

The Section continued to operate and maintain the system for reporting to BIDs currently active or fiscal year awards to date on regular monthly, quarterly, or annual schedules. The data in these reports were organized by geographic location, principal investigator, program class, grant number, budget start date, and other variables. Additional reports were routinely prepared for the BIDs prior to each round of Council meetings, showing details on competing grant applications. Computer tapes were provided to most BIDs on regular weekly, monthly, and annual schedules. Listings and address labels were furnished to DFM, ADAMHA, the Health Resources and Services Administration, and FDA on a monthly basis, identifying grants for which reports on expenditures were overdue. The Section compiled a number of tables for each quarterly issue of the NIH Management Data Book. As in previous years, statistical summaries of initial review group actions on competing, research, and training grant applications were prepared during each review cycle.

The NIH/Grantee Institution Interface System provided grantee institutions with current information on awards and pending applications in standard hard-copy formats or magnetic tapes in exchange for feedback to NIH concerning the accuracy of information.

A series of tabulations of research and development contracts were provided to the Division of Contracts and Grants, Office of the Director, quarterly, semi-annually, and annually for inclusion in reports to the Department, showing data by BID, type of contractor, type of contract, competitive versus noncompetitive contracts, dollar-award intervals, small businesses, minority-owned and women-owned business organizations, and other variables.

As in previous years, data on NIH extramural activities were transmitted to the National Academy of Sciences. These included IMPAC records on grant applications and awards and contracts to update the Consolidated Grant Applicant File. The Academy was also provided detailed information from each training appointment and fellowship award to update its roster of the individuals supported by NIH training programs.

The Section devoted considerable effort toward completing three annual, Government-wide surveys of research and development. The National Science Foundation survey, entitled "Federal Funds for Research, Development, and other Scientific Activities," covered all NIH intramural and extramural research activities for the past fiscal year together with the estimated

obligations for the next two fiscal years, by performer, field of science, geographic area, basic and applied research and development, and combinations of the above. In connection with its responsibilities for preparing this survey, the Section developed a new system for collecting, storing and reporting NIH obligations for basic and applied research and development for Fiscal Year 1982. In addition to facilitating consistent and timely reporting, this new system will substantially reduce the amount of effort required of the BIDs in future years by providing an option to code only new or competing awards. The annual survey by DHHS of obligations to institutions of higher education and other nonprofit organizations (known also as the CASE report) required summaries of all NIH extramural support, by activity, for individual institutions and health professional schools. The Section also prepared the NIH response to NIH's own annual survey of obligations for medical and health-related research covering intramural and extramural research and development obligations, by field of science, performer, program, and state.

The Section published the annual "Brown Book" series of NIH extramural awards for Fiscal Year 1982, consisting of three separate volumes on (1) research grants, (2) training, construction, cancer control, and medical library grants, and (3) research and development contracts. The Section cooperated with the staff of the Office of the Director, NIH, in compiling data on extramural activities for the annual publication entitled Basic Data Relating to the National Institutes of Health. An analytically oriented chart book, entitled NIH Extramural Trends, Fiscal Years 1972-1982, was prepared for internal use, along with a set of 35 mm color slides to enable these charts and related materials to be presented to various audiences. For the first time, virtually all the hard-copy charts and a sizeable portion of the color slides were prepared within the Section, using computer graphics techniques. These new procedures proved to be highly cost-effective. The Section compiled quarterly reports on NIH new grants and awards and contributed to the Fogarty International Center's Statistical Reference Book of International Activities and the companion volume listing each international award. It also helped to prepare DRG publications on NIH fellowship awards for fiscal years 1981 and 1982.

Since May 1980, a series of recurring reports has provided information on competing applications reviewed and recommended for approval, together with various statistical measures of priority score distributions, such as means, medians, standard deviations, and lowest and highest scores for each study section. These reports were designed to provide information enabling BIDs to evaluate and use actual (raw) priority scores for decisions formerly based on normalized priority scores.

In order to further help the BIDs that have relied on normalized priority scores, the Section, in cooperation with the National Heart, Lung, and Blood Institute, has operated a system for ranking grant applications on a comparable basis, using percentile distributions of actual priority scores. These ranks are stored in the IMPAC system for each competing application to facilitate preparing paylists and other reports to Councils.

Six BIDs regularly use output from this system. Prior to each Council meeting, a variety of computer-generated charts were distributed to the BIDs and DRG administrative staff to facilitate comparisons of priority scores and recommendation rates for the various study sections.

The Section also served as the authoritative source for information on the workload of DRG study sections. Several weeks after the cutoff dates for receipt of applications for review cycles, statistical tabulations were prepared showing the volume of applications to be reviewed by each study section and BID, the type of grant or activity, and, for primary and secondary BIDs, amended applications and requested dollar values for applications. Following the completion of each review cycle, special summaries of study section actions were provided to assist in managing and monitoring their activities.

The Section worked closely with staff in the Office of the Director, NIH, in developing and preparing reports on NRSA fellowships and indirect trainees. These reports present the data along two axes: one, scientific discipline, is a group of new lexicon DSF codes; the other, program area, is a grouping of codes unique to each of the BIDs.

- Systems Support and Development

The Section maintained the Institution Profile File (IPF), which is the central registry of names, locations, and other selected data for organizations participating in PHS extramural programs. This file assured uniform reporting and eliminated the necessity for storing similar information in individual grant and award files. Approximately 800 new records were added to the IPF, along with more than 20,000 item updates. This increase largely resulted from applications for support under the SBIR Program. The IPF now contains about 28,000 records. An additional 34,000 item updates were made to reflect Congressional district codes based on the 1980 census and related reappointments.

The PHS Grants Data System was supplied monthly magnetic tapes of all grant records contained in the IMPAC system and the IPF codes for institutions newly recorded in the Grants Data System. This support facilitates consistent and accurate PHS-wide reporting.

The Section continued to develop and maintain the index of major components and departments for institutions of higher education. This index and the related computer program ensured consistent coding of applications and awards for medical schools, departments, and other components. During Fiscal Year 1983, approximately 140 new department codes were added to the index, along with approximately 7,000 item updates. The index now contains information on about 2,200 institutions of higher education, approximately 16,700 major components and departments, and about 3,200 reference lines for internal use.

The Section has completed reference manuals on the procedures for the IPF and the major component and department index. These manuals provide the first complete documentation on how IPF records are researched, established, and maintained as well as how the codes for departments and major components of institutions of higher education are developed and maintained.

As in previous years, this Section was responsible for creating and maintaining a special set of fiscal year publication files, which serve as authoritative sources of data to determine trends or year-to-year changes in the amounts and distribution of NIH extramural awards. A special subset of these files contains data needed for NIH reports on basic and applied research and development. The Section interacted extensively with staff in the BIDs and Office of Program Planning and Evaluation, Office of the Director, concerning these data.

In response to the large number of requests for reports that compare and/or rank institutions by such factors as dollars awarded or other success-related statistics, the Section has greatly expanded its capacity to provide such statistics in a consistent and usable manner. Included is a standardized procedure for providing each institution with a table showing 12 year trends and rankings for numbers of competing research project applications, approval and success rates, and priority scores. Trend data are available based on either the number of applications or dollars requested. In addition, corresponding NIH profiles are available, which permit comparison to such statistics as the average, high, low, and median institution statistics.

Work was completed by a contractor on the NIH Research Grant Expenditure Reports for fiscal years 1976 to 1978. The requirement to file these expenditure reports was discontinued in 1979, and the entire data base includes fiscal years 1971 through 1978.

- Retrieval Training

The Section has long been responsible for assisting BID staff in developing and applying systems and programing techniques that would facilitate independent use of the IMPAC system. A senior computer specialist is available and responsible for providing these services on a full-time basis. During the year, basic courses on how to use the Inquiry and Reporting System were offered.

- Computer Graphics

Capabilities were greatly expanded during this past year. An interface with the computer system at the Applied Physics Laboratory (Johns Hopkins University) was developed, and as a result, the majority of the slides pertaining to the NIH Extramural Trends booklet were prepared in-house. The acquisition of an unrestricted telephone line, along with design and development of computer procedures, permitted direct access to the Laboratory's system to run jobs. Procedures were also developed to improve

the color quality of the slides. The Section continued to prepare graphs showing projections for competing research project applications for use at meetings with the Office of Extramural Research and Training, BID Directors, and DFM. A new series of graphs was developed this past year showing differences between the standard model and the BIDs' projections of competing research project applications. Graphs showing trends in workload were also developed for the Referral and Review Branch, DRG. The Section provided advice and assistance in developing computer graphics to the BIDs and other agency personnel. With the acquisition of an additional graphics terminal, the training of additional personnel in the Section on an informal basis has commenced.

**NIH Library, Building 10
National Institutes of Health
Bethesda, Md. 20205**



**Amazing Research.
Amazing Help.**

<http://nihlibrary.nih.gov>

**10 Center Drive
Bethesda, MD 20892-1150
301-496-1080**

NIH LIBRARY



3 1496 00210 8416