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**ABSTRACT**

An annotated bibliography on practices, theories, and potential problems in several subject areas in graduate education is presented. Most of the books and articles were published during 1978-1982, although some earlier works are included. The bibliography covers: administration; doctoral degrees other than the Ph.D.; fact books and reference material; faculty development; international studies issues; international study guides and handbooks; law and the graduate dean; the job market for graduate students; midcareer change for academics; minorities and graduate education; nontraditional and adult education; planning, budgeting, and retrenchment; quality, self-assessment, mission; student admission, retention, and evaluation; university/industry relationships; and women and graduate studies. (SW)

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Annotated Bibliography of Graduate Education  
Commentary: 1978-1982

Council of Graduate Schools in the U.S.  
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## INTRODUCTION

One problem faced by most graduate administrators is assembling a reference library for graduate administration. This annotated bibliography can help by directing deans toward some recent publications that may be helpful in outlining practices, theories, and potential problems in several subject areas.

The bibliography does not pretend to be comprehensive. The publications listed and annotated are instead representative of a sea of publications, many of them repetitive, on every conceivable issue of graduate administration. The 1978 cutoff date is arbitrary, and has been violated occasionally for important pre-1978 books or articles.

At present, The Council of Graduate Schools plans to update this publication periodically, adding more sections to it and changing some of the items listed in the existing sections as warranted. Readers are invited to suggest new titles to include by writing to the CGS office in Washington, D. C.

Users of this bibliography should be aware that most educational associations put out their own newsletters, quarterlies, journals, and occasional publications. Members of the American Council on Education (ACE) are particularly active in addressing problems inherent in special areas of higher education. A list of relevant associations and publishers and their addresses is included at the end of each chapter. Articles from the CGS Proceedings have not been annotated. Instead, relevant articles are listed by author, volume, and page numbers at the end of each chapter.

Finally, many of the articles listed here, as well as many supporting articles, are available on the ERIC system.

We trust that this bibliography will be helpful to graduate administrators as they confront major issues in graduate education.

for The Council of Graduate Schools

Richard D. Fulton

Martha Romero

Compilers

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Sharing Authority Effectively  
Kenneth P. Mortimer and T.R. McConnell

The Art of Administration: A Guide For Academic Administrators. Kenneth E. Eble. Jossey-Bass, San Francisco, 1978.

This is a handbook for administrators, particularly for those who are entering administration for the first time, which stresses leadership as a quality to be sought in all administrative tasks.

The overarching premise of the book is that "the harmonizing of the ideals of serving and leading is no less important than the daily carrying out of the acts that both serve and lead." Eble contends that all administrators share the responsibility both to serve and to lead. He conceives of administration as an "art," as it deals with the complexities and subtleties of working with people, the skill and sensitivity necessary to doing it well, and the fulfillment of one's vision largely through other people.

Eble's examples are drawn from the academic side of administration. He attempts to keep the details of administrative functioning in close touch with scholarship and learning. The first five chapters focus on administrative details, whereas the last chapters focus on getting the most out of people. Chapter 10 deals with the administrators' paradox of serving and leading. An extensive bibliography is provided.

"Construct Space and Subjectivity Problems in Organizational Effectiveness," Kim Cameron. NCHEMS Reprint Series, National Center for Higher Education Management Systems, Boulder, Colorado.

Cameron discusses the numerous ambiguities in setting up organizational systems, particularly in higher education systems, and evaluating their effectiveness. Although this paper deals with organizations in general rather than with specific graduate division structures, the cautions that Cameron introduces into it regarding organizations and evaluations can be of use to graduate deans.

"Domains of Organizational Effectiveness in Colleges and Universities," Kim S. Cameron. NCHEMS Reprint Series. National Center for Higher Education Management Systems, Boulder, Colorado.

Cameron examines four approaches to defining organizational effectiveness which are widely used in higher education: the goal model, system resource model, process model, and participant satisfaction model. He warns that none of these is an effective measuring tool when used by itself. He then proposes a new system that takes into account the difference between higher education institutions and the for-profit sector, and also that accounts for differences in kinds of higher education institutions.

Cameron's conclusions show that university administrators must be aware of a number of factors in setting up an effective organizational structure, and that administrators and governing boards must also be aware of a multitude of factors in evaluating the effectiveness of institutions.

"Employment Practices in Academics," Robert H. Linnell, et.al. American Association for Higher Education, Washington, D.C., 1979.

A compilation of articles about the future of affirmative action in American higher education. The authors agree that while progress has been made in removing the most visible forms of discrimination, the subtle forms which remain to be tackled present a more difficult problem. The authors propose different strategies. One suggests stricter enforcement; one suggests a shift from regulation to incentives and one suggests that we abandon tenure.

Handbook for College Administration. Benjamin E. Sprunger and William H. Bergquist. Council for the Advancement of Small Colleges, Washington, D.C., 1978.

Administration, to these authors, is most helpfully viewed as management process. Academic administration is to be viewed like management in business and other types of service organizations although having distinctive components. The organization of the handbook follows the six traditional functions of administration: planning, organizing, staffing, leading, evaluating, and developing.

The uniqueness of the volume is in the provision of documents giving practical guides for implementation of some aspect of each topic. These documents range from a questionnaire that might be used in a small group of administrators to elicit comments and discussion on the principles of college administration, to announcements and descriptions of positions and an enumeration of the steps that should be taken in following affirmative action. The examples are particularly well suited for use in small colleges.

Higher Education Planning: a bibliographic handbook. Ed. D. Kent Halstead,  
U.S. Government Printing Office, 1979.

An extremely well-done critical annotated bibliography of hundreds of books and articles important in higher education before 1979. The world of higher education is broken into 22 pieces, including "Campus and Building Planning," "Demography," "Libraries," and "Work and Education" among them. Puckishly, Halstead arranges his chapters alphabetically. Each chapter's author (i.e., the bibliographers) is a recognized expert in higher education. Thus, we have David Breneman on "Finance," John Folger on "Governance and Coordination," and Everett C. Ladd on "Faculty."

The bibliographies should help in making intelligent decision in stocking a library. The critical descriptions make excellent reading in themselves.

Higher Learning in the Nation's Service. Ernest J. Boyer and Fred M. Hechinger. Carnegie Foundation for the Advancement of Teaching, Washington, D.C., 1982.

The authors argue that it is time to review our standard definitions of research, teaching, and service. Service, in particular, should be re-defined as education for citizenship. All students should be required to study public policy issues so that they can understand public debates over contemporary problems such as toxic waste disposal and nuclear power. Students should also study ethics within their major fields. In addition, colleges and universities should develop "courses in citizenship" as part of their adult education programs.

Improving Academic Management. Paul Jedamus, Marvin W. Peterson, and Associates. Jossey-Bass, San Francisco, 1980.

Subtitled "A Handbook of Planning and Institutional Research," this book is organized around the perspective of institutional research and institutional planning as one integrated management function. The editors note in the preface, "the planning process must be research-based to have validity and utility, while institutional research must be both future-oriented and related to institutional options in achieving institutional goals and objectives if it is not to be meaningless."

Part One explores the external environment of higher education and relates current changes to possible implications for institutional research and planning. Part Two examines the potential relations of the institution with its environment. Part Three discusses the development of an institutional master plan, setting institutional goals and objectives, projecting alternative futures, forecasting economic and demographic conditions, and identifying regional and community education needs. Part Four concerns resource allocation, including ways of setting financial priorities, selecting appropriate budget strategies, and determining the needs of the institution for



faculty, administrative staff, and physical plant. Part Five deals with measuring the effectiveness of resource allocation in achieving institutional goals and meeting academic needs. Part Six examines the relationship between offices of institutional research and planning and other management units, and suggests where these offices should be located within the administrative structure and the role they should play in the decisionmaking system. The final part recognizes that institutional research and planning responsibilities must vary among different types of institutions. Each chapter concludes with a bibliographical essay and references. The volume itself has an extensive name index and a useful subject index that improve the usefulness of this large reference work.

Leadership Vitality: A Workbook for Academic Administrators. David G. Brown. American Council on Education, Washington, D.C., 1979.

A compendium of quotations on leadership, the context of this book is intended to be a "thought-starter" and is based on the premise that academic administrators learn best from their colleagues. Interviews, small group interactions on appraisal forms used at different universities, shared speeches and a series of profiles are included. Reading is light, fast and food for thought for deans interested in reflection or development of their leadership styles and ability.

The Organization and Administration of Graduate Schools in the U.S. Council of Graduate Schools in the United States, Washington, D.C., 1981; and The Organization of Graduate Study within the University. Council of Graduate Schools in the United States, 1976.

These two pamphlets deal with essentially the same subject, and were developed by CGS committees on organization and administration. The second, earlier publication is the shorter, more general of the two and is more a policy statement than a guide. The later of the two includes policy recommendations but concentrates on common elements in graduate education at CGS schools. The authors include advice for setting administrative structure (including charts), for making faculty appointments, for admitting students, and for governing programs. They also include a few warnings about how not to do things.

These pamphlets are helpful in two ways: they provide a comprehensive look at common ways of approaching administration, and they provide some support for deans caught in local administrative controversies.

Policy Making and Effective Leadership. J. Victor Baldrige, David V. Curtis, George Ecker, and Gary L. Riley. Jossey-Bass, San Francisco, 1978.

Believing that leadership patterns and management styles in colleges and universities are not as well known as people believe, the authors describe major developments in academic management and governance, including faculty

roles, styles of administrative leadership, functions of policymaking bodies, the efforts toward unionization, and the control by state systems. They also expand traditional organizational theory and apply it to colleges and universities.

The book is based on findings of a research project conducted at the Stanford Center for Research and Development in Teaching with grant support from the National Institute of Education (1970-1974). The central findings in the area of policymaking and effective leadership are data based.

"Reflections upon Academic Administrative Life," Robert Allen Skotheim.  
Liberal Education, 67, (Spring, 1981).

The subjective as well as the managerial aspects of the change from teaching faculty to administrator status deserve attention. Sense of identity, social interactions, and scope of responsibility are some of the sources of tension and incongruity in an administrator's life.

The Rites, Roles, and Styles of the Dean. James R. Appleton, Channing M. Briggs, and James J. Rhatigan. National Association of Student Personnel Administrators, Portland, Oregon, 1978.

This book is of value to those who desire to learn about the complex functions, responsibilities, and objectives of chief student affairs administrators. The book draws on the experience and professional styles of eight successful student affairs deans, each of whom has served as president of the major student affairs national association. Emphasis in the book is upon the underlying values and competencies that seem to be associated with successful student affairs administration. The various chapters of the book are largely the result of carefully structured interviews conducted on the campuses of the eight administrators. Concepts and principles constitute the focus of the book.

In a valuable chapter called "Kisses of Death," 18 examples of administrative behavior are insightfully analyzed and probable consequences suggested. Some of the kisses discussed are under-consultation, lack of humanity, under- and over-delegation, misapplication of useful strategies, professional dishonesty, and lack of leadership. The chapter is particularly useful in the perceptive analysis it presents of the role of the student affairs administrator.

Sharing Authority Effectively. Kenneth P. Mortimer and T. R. McConnell.  
Jossey-Bass, San Francisco, 1978.

This book examines the basis of authority and legitimacy for American academic governance under two main themes and a series of subthemes. The first major theme is the appropriate distribution of authority between faculty and administrators. The second concerns the various claims for legitimate governance in a college or university. The book tends to concentrate on the relationships between various constituencies, but 6 of its 10 chapters directly apply to faculty participation in governance.

Chapter I, "The Legitimacy of Shared Authority," discusses the basic literature on the sharing of decisionmaking between interdependent constituents. The chapter adopts the use of terms "formal and functional authority" in an attempt to bring consensus to the prevailing disagreement about terms like "authority, power, and influence." The faculty are presumed to be the repositories of functional, professional authority.

Chapter II is a discussion of the literature and research on academic senates. The discussion of these faculty governance structures is organized under five basic categories: (1) the eligibility for membership; (2) structural factors; (3) the extent to which committee service is concentrated in the hands of a few; (4) the extent to which administrators are represented on faculty governing structures; and (5) the problems of multicampus faculty governance structures. The chapter draws on original cases from the author's own research.

Other chapters in the book deal with central administrative leadership, accountability and external constraints, statewide coordination and external constraints, and decentralization versus centralization. The final chapter argues for a process orientation to academic governance.

Addresses of Publishers and Associations:

American Association for Higher Education, Suite 600, One Dupont Circle,  
Washington, DC 20036

American Council on Education, One Dupont Circle, Washington, DC 20036

Carnegie Foundation for the Advancement of Teaching, 1785 Massachusetts  
Avenue, N.W., Washington, DC 20036

Jossey-Bass, Inc., 433 California Street, San Francisco, CA 94104

Articles of further interest from CGS Proceedings:

Bock, Robert M., 14 (113-114)  
Cowgill, James J., 14 (106-111)  
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Gooding, Elmer R., 14 (121-126)  
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2. Doctorate Degrees Other Than Ph.D.  
Section Contents

The American Doctorate

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American Graduate Schools of Education, A View From Abroad

Harry Judge

College Teaching as a Profession

Paul L. Dressel

A Degree for College Teachers: The Doctor of Arts

Paul L. Dressel and Mary Magdala Thompson

The Doctor of Arts Degree: A Bibliography of Dissertations

Glenn S. Gritzmacher

The Doctor of Arts Degree: A Degree for College Teachers

Enrollment, Graduations, and Related Data: Baccalaureate and Graduate Programs  
in Nursing

Marion I. Murphy

"The Professional Doctorate"

X.J. Musacchia et.al.

Summary Report 1980 Doctorate Recipients From United States Universities

Peter O. Syverson

The American Doctorate. John W. Harris, William E. Trout, Grover Andrews, Jr.  
Council on Postsecondary Accreditation, Washington, D.C. 1980.

Comparing the differences between the Ph.D. and professional doctorates, between traditional and nontraditional programs, and between external (off-campus) and residential degree programs raises several basic questions concerning graduate education. What is the fundamental meaning of the degree today? What implications exist for accrediting bodies in determining criteria for accreditation? After a brief historical overview, the authors made some succinct recommendations related to quality assurance and student performance criteria which remain applicable to all doctoral programs.

American Graduate Schools of Education, A View from Abroad. Harry Judge. The Ford Foundation, New York, 1982.

Harry G. Judge of Oxford University, a historian and educational leader, was asked by the Ford Foundation to conduct a series of visits at schools and departments of education in U.S. research universities and exchange views with the people who are working in them and served by them. Broadly speaking his purpose was to address the question: What is the place and role of the school of education in the research university, particularly at the graduate level, as well as in the world of educational practice itself?

Judge analyzes typical American graduate schools of education and finds them confused about their purpose. They have tried to divorce themselves from teacher preparation, he says, and have brought too many non-education disciplines to bear on education research.

His conclusion is that teacher preparation should be a graduate responsibility, that undergraduate degrees in education should be eliminated. Further, education research should be undertaken by far fewer people at far fewer institutions than now obtains, and education research should be done primarily by trained people in education.

College Teaching as a Profession. Paul L. Dressel. Michigan State University Printing, East Lansing, 1982.

A summary of Dr. Dressel's study of the Doctor of Arts degree, this pamphlet provides a brief history of the D.A. degree, lists D.A. programs now available, gives numbers of degree recipients, and suggests a brief rationale for the degree distinctions which the D.A. programs make.

A Degree for College Teachers: The Doctor of Arts. Paul L. Dressel and Mary Magdala Thompson. The Carnegie Foundation for the Advancement of Teaching, Berkeley, California, 1977.

A major distinction is made in this technical report between the Ph. D. and the Doctor of Arts degree. The Doctor of Arts degree should prepare those who are to be engaged in the communication rather than the creation of knowledge. The Ph.D. should prepare those who are to be researchers not teachers. A general description of requirements for awarding the Doctor of Arts is followed by a discussion of model programs being implemented and the evaluation strategies for those programs.

The Doctor of Arts Degree: A Bibliography of Dissertations. Glenn S. Gritzmacher. Written for the degrees through 1980, Second Edition. Graduate School and Milner Library, Illinois State University, Normal, Illinois, 1981.

This Bibliography uses Dissertation Abstracts International and American Doctoral Dissertations from 1977-1980 to compile a list of dissertations written for the Doctor of Arts degree. Twenty-six universities awarding the degree are represented. A subject index, agriculture through zoology, identifies the number of dissertations by subject and the institution awarding the degree. No information about what constitutes the difference between the D.A. and the Ph.D. is given in this volume.

The Doctor of Arts Degree: A Degree for College Teachers. Michigan State University Printing, with support from Carnegie Corporation, 1980.

Thirteen of the D.A. degree-granting institutions were involved in the brief statement outlining the purpose, program characteristics and credit hour requirements for the Doctor of Arts degree. This brochure provides the description of a basic model for planning a D.A. program.

Enrollment, Graduation: lated Data: Baccalaureate and Graduate  
Programs in Nursing. I. Murphy. American Association of Colleges of  
 Nursing, Washington, D.C., 1982.

This special report from AACN's Institutional Data System was prepared in response to many requests for trend data which included enrollment and graduations as of the fall of 1981. Main emphasis has been devoted to comparisons covering the last three years. A brief final section presents information emphasizing the very serious gaps in data which exist in nursing education at baccalaureate and higher levels. Comments relating to preparation of faculty focus attention on the future of nursing as a scholarly scientific discipline.

"The Professional Doctorate," X. J. Musacchia et.al, Proceedings of the Council of Graduate Schools in the U.S., 20 (1980), 31-46.

This panel discussion from the Proceedings of the CGS Annual Meeting raises a number of questions about professional doctorates and offers some answers to problems surrounding the degree programs. The history of professional doctorates and their relationship to the Ph.D. are discussed, as are the objectives of the programs. Robert Amme and Daniel Zaffarano also discuss the administration of the programs and the connections between professional doctorates and graduate schools.

These discussions center on the professional equivalent to the Ph.D. They do not consider the M.D., J.D., D.V.M., or D.O.S. The discussions of administration are particularly important because they outline the many practical problems surrounding faculty appointments, curriculum, and interrelated Ph.D./professional programs, and offer suggestions for improving administrative control of the professional studies.

Summary Report 1981 Doctorate Recipients from United States Universities.  
 Peter D. Syverson. National Academy Press, Washington, D.C., 1981.

This report presents a brief summary of data gathered from the Survey of Earned Doctorates during the academic year 1980-81. The survey is conducted annually by the Commission on Human Resources (CHR) of the National Research Council. It presents discussions on trends in the number of doctorates by field for U.S. men and women, and foreign students earning doctorates from U. S. universities. Five basic tables are included to depict data by fine field of doctorate, statistical profile of male and female doctorate recipients by field, sources of financial support, recipients by sex, state of doctoral institution, summary field, and profile of recipients by racial or ethnic group and U. S. citizenship status. The title date, of course, changes with the issuance of each new report.



Addresses of Publishers and Associations:

American Association of Colleges of Nursing, Suite 430, Eleven Dupont Circle, Washington, D.C. 20036

Council on Postsecondary Accreditation, Suite 760, One Dupont Circle, Washington, D.C. 20036

The Ford Foundation, Office of Reports, 320 East 43rd Street, New York, New York 10017

National Academy Press, 2101 Constitution Avenue, N.W., Washington, D.C. 20418

Articles of Further Interest from CGS Proceedings:

Boddy, Francis M., 4 (105-109)

3. Fact Books and Reference Material  
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Academic Science: Graduate Enrollment and Support

Condition of Education: A Statistical Report  
Ed. Nancy B. Dearman and Valena White Plisko

Critical Questions in Assessing Organizational Effectiveness  
Kim Cameron

Data User Guide to the National Science Foundation's University Science Statistics  
Survey Data Tapes

Digest of Education Statistics 1982  
W. Vance Grant and Leo J. Erden

Educational Media Yearbook  
Ed. James V. Brown

Encyclopedia of Educational Research, Fifth Edition

Fact Book for Academic Administrators  
J. Charles Anderson

Facts About New England Colleges, Universities and Institutes

"Graduate Education in Catholic Colleges and Universities: A Report on the ACCU  
Survey of Graduate Programs"  
David M. Johnson

Graduate Programs and Admissions Manual

"Minority Recruitment Data: A Preliminary Report"  
Donald R. Deskins, Jr.

Projections of Educational Statistics to 1988-89  
Martin M. Frankel and Debra E. Gerald

Research Study of the Direct and Indirect Effects of Federally-Sponsored R & D  
in Science and Engineering at Leading Research Institutions  
David J. Bowering and John K. Sheehan

Academic Science: Graduate Enrollment and Support, date. National Science Foundation, Washington, D.C.

This publication has gone under several names, including Graduate Science Education: Student Support and Postdoctorals, date. It is one of a number of important statistical collections done by the National Science Foundation.

This publication collates, entabulates, and summarizes the data collected on NSF's annual Survey of Graduate Science Students and Postdoctorates. Although the results of the survey are summarized every spring in NSF's Science Resource Studies Highlights (also a worthwhile publication to receive), it is valuable to have the whole publication: among other tables, it includes the famous ranking of institutions by federal dollars received.

Condition of Education: A Statistical Report. Ed. Nancy B. Dearman, and Valena White Plisko. National Center For Education Statistics, Washington, D.C., 1982.

This annual report describes conditions in education as well as conditions in the larger society which affect education. Trends are reported in educational institutions at all levels of schooling and include information on both personnel and students. This year's edition highlights enrollment shifts and the adjustments made by institutions as a result of those changes in enrollment. Statistical tables and charts accompany each chapter. Part Two describes services provided by NCEs in 1982-1983.

Critical Questions in Assessing Organizational Effectiveness. Kim Cameron. NCHEMS, National Center for Higher Education Management Systems Reprint Series, Boulder, Colorado.

Cameron says that "evaluating the effectiveness of organizations requires selecting the appropriate criteria. Many approaches are available, but to find the most useful approach, the evaluator should first answer critical questions in assessing organizational management." He reviews four major approaches to evaluating effectiveness, and points out why they are ineffective in evaluating college and university organizations, which he characterizes (with no negative connotations intended) as "organizational anarchies." He concludes by posing six questions that administrators should consider in their evaluations of effectiveness, and discusses the ramifications of those questions.

Although this is not a fact book per se, it is a useful reference book that can be used in organizational evaluations.

Data User Guide to the National Science Foundation's University Science Statistics Survey Data Tapes. National Science Foundation, Division of Science Resources Studies, Washington, D.C., 1982.

The objective of the Data User Guide is to introduce the potential user to the University Science Statistics Surveys data base, its structures and formats for both archival to public-use tapes. Codes and formats are given for surveys of scientific and engineering expenditures at universities and colleges, scientific and engineering personnel employed at university and colleges, graduate science students and postdoctorates, and federal support to university, college and selected non-profit institutions.

Digest of Education Statistics 1982. W. Vance Grant and Leo J. Erden. National Center for Educational Statistics. Published by the Government Printing Office, Washington, D.C., 1982.

The Digest has been a yearly publication since its founding in 1962; thus, the date in the title will change (as, of course, will the statistics) but the tables will remain the same. Statistics cover all levels of education, from primary through graduate school. They also cover almost every conceivable subject: enrollment, enrollment by race and sex, migration of students, etc. They also cover faculty and staff subjects: full-time and part-time instructors, faculty by manpower resource category, faculty by sex, etc. In fact, every fact you want to know about education is in this book. The statistics, for the most part, are current through 1980 with some enrollment data current through 1981.

Educational Media Yearbook. Ed. James V. Brown Libraries Unlimited, Inc., Littleton, Colorado.

An annual review of educational technology, this yearbook provides information regarding media developments in colleges and universities, research and development centers, government agencies, and foundations. It contains field reports from several hundred organizations, associations, and nonprofit foundations, and discusses trends for the educational media industry. It includes detailed reviews of master's and doctoral programs for instructional technology, library and information science, and broadcast communications in U.S. institutions of higher education.

Encyclopedia of Educational Research, Fifth Edition. Five Volumes. Macmillan Publishing, New York, 1982.

A complete encyclopedia of almost any subject pertaining to education. This carefully researched, carefully written collection contains essays varying in length from a few paragraphs to several pages on everything from curriculum to libraries to teaching composition. Each entry comes complete with a selected bibliography for further reference. Contributors include some of the most respected names in each area. The Encyclopedia, like any encyclopedia, should be the basic reference work in any library.

Fact Book for Academic Administrators. J. Charles Anderson. American Council on Education, Washington, D.C., 1981.

Published annually, this source book condenses and arranges existing data to emphasize trends and relationships in higher education. The data is compiled into categories, including Demographic and Economic, Enrollment, Institutions, Faculty and Staff, Students, and Earned Degrees by discipline as well as by region and type of institution. This book of tables and charts is a quick handy reference for information in both undergraduate and graduate demographics.

Facts about New England Colleges, Universities and Institutes. New England Board of Higher Education. 18th Edition, 1981.

Data about degree-granting institutions in New England. Regional summary data is given on enrollments, tuition and state appropriations to higher education. The fact book is published annually and includes the names of the administrators at each institution.

"Graduate Education in Catholic Colleges and Universities: A Report on the ACCU Survey of Graduate Programs," David M. Johnson. Current Issues in Catholic Higher Education, Volume 3, (Summer, 1982), Pgs. 4-39.

Johnson's survey includes all 111 Catholic colleges and universities which grant graduate degrees (excluding seminaries). The survey's purpose is to build a data file of important statistics (enrollment, degrees awarded, financial aid, etc.) relevant to Catholic graduate education. The data is primarily from fall semester 1980, although some statistics are from 1970, 1975, and 1980; the reason for collecting those was to show trends in certain areas.

The statistics and Johnson's well-reasoned evaluations should be of great help to deans of Catholic institutions. As Johnson points out, no other study of Catholic education in this kind of detail is available.

Graduate Programs and Admissions Manual. Graduate Record Examinations Board, The Council of Graduate Schools in the U.S., and Educational Testing Service, Princeton, New Jersey, 1981.

The Graduate Programs and Admissions Manual, jointly sponsored by the Graduate Record Examinations Board and the Council of Graduate Schools in the United States, provides comprehensive information about United States graduate schools and the programs they offer. It is designed to serve the needs and interests of the entire graduate education community. Summarized in the tables of the four volumes of the 1981-83 edition is information supplied by 741 institutions: institution size, academic calendar, financial aid deadlines, programs offered in 84 major fields, number of students and faculty, number of degrees awarded, program prerequisites in each area and in a large number of special and interdisciplinary programs.

"Minority Recruitment Data: A Preliminary Report," Donald R. Deskins, Jr. Rackham Reports (University of Michigan Graduate School), Volume 7 (Fall, 1981), Pgs. 1-5

This particular paper is valuable because Donald Deskins not only reproduces some important tables concerning minority students in higher education, but he also analyzes them. The tables, developed by the Justice Department's Office of Civil Rights, are important indicators of the status of minority students. Deskins shows how the tables can be used by individual institutions to measure progress in minority recruitment, retention, and graduation against national figures.

Projections of Educational Statistics to 1988-89. Martin M. Frankel and Debra E. Gerald. National Center for Educational Statistics, 1980.

"This publication provides projections of statistics for elementary and secondary schools and institutions of higher education and includes statistics on enrollments, graduates, teachers, and expenditures for the period of 1979-80 to 1988-89," says the introduction. These projections are among the most accurate available. The statistics are scheduled to be updated every two years to account for unforeseen trends in degree production, new fields, etc.

Research Study of the Direct and Indirect Effects of Federally-Sponsored R & D in Science and Engineering at Leading Research Institutions. David J. Bowering and John K. Sheehan. Science Management Corporation, under contract to NSF, 1981.

NSF commissioned this study as part of an effort to find out how federally funded research affects institutions in ways other than the obvious affect of a single project. The study concentrated on 73 leading public and private institutions in the United States (leading in the amount of federal research and development money received).

The results show a measurable increase in Ph.D. and masters degree production directly attributable to federal research and development money. The report also shows the impact on enrollments, research and development staff size, and differences between independent and public institutions. It also is broken down into measures for physical, biological, and engineering sciences.

The report is very poorly written , but contains some useful data, assuming the methodology is not as sloppy as the reporting.

Addresses of Organizations and Publishers:

Association of Catholic Colleges and Universities, Suite 770, One Dupont Circle, N.W., Washington, D.C. 20036

Educational Testing Service, Princeton, New Jersey 08540

National Center for Educational Statistics, Statistical Information Office, 1001 Presidential Building, 400 Maryland Avenue, S.W., Washington, D.C. 20202

National Center for Higher Education Management Systems, P.O. Drawer P, Boulder, Colorado 80302

National Science Foundation, Division of Science Resource Studies, Washington, D.C. 20550



4. Faculty Development  
Section Contents

Academic Rewards in Higher Education

Darrell R. Lewis and William E. Becker, Jr.

Classical Tenure and Contemporary Alternatives: Academe's Principles and Court Decisions

Elaine R. Di Biase

Conflicting Pressures in Postsecondary Education

Ed. Robert H. Fenske

Effective Approaches to Faculty Development

Ed. William C. Nelsen and Michael E. Siegel

Evaluating Faculty Performance and Vitality

Wayne R. Kirschling. Guest Ed.

Faculty Career Development, Current Issues in Higher Education

Nontenure-Track Science Personnel: Opportunities for Independent Research

Irene L. Gomberg and Frank J. Atelsek

Publication, Teaching, and the Academic Reward Structure

Howard P. Tuckman

Successful Faculty Evaluation Programs: A Practical Guide to Improve Tenure Decisions

Peter Seldin

Tenure. Current Issues in Higher Education No. 6

Tenure and Termination in Financial Exigency: Report No. 3

Margorie C. Mix

Young Doctoral Faculty in Science and Engineering: Trends in Composition and Research Activity

Frank J. Atelsek and Irene L. Gomberg

Academic Rewards in Higher Education. Darrell R. Lewis and William E. Becker, Jr. Ballinger Publishing Co., Cambridge, Massachusetts, 1979.

The authors' interest in academic rewards stems from the applied concern for administration. "Knowledge about what motivates faculty to become effective scholars," they note, "is of critical importance for rational decisionmaking." This collection is a direct result of a colloquium series the authors organized in 1977 to extend the conceptual and empirical bases of academic reward systems.

The volume is organized into five parts. Part I deals with theoretical perspectives on faculty motivation. Part II is a discussion of the job market by Richard Freeman. Part III is devoted to academic labor productivity and its measurement. Part IV focuses on the empirical aspect of current reward structures, with primary attention to salaries.

The concluding chapter, by the editors, is on adaptability to change and academic productivity. A number of external pressures currently affecting productivity -- declining demand, financial pressures, increasing governmental regulations, and expanding egalitarianism -- are discussed. Some policy implications and strategies are offered.

Classical Tenure and Contemporary Alternatives: Academe's Principles and Court Decisions. Elaine R. Di Biase. (Unpublished doctoral dissertation, The Pennsylvania State University, University Park), 1979.

The focus of this study is the legal basis of alternative-to-tenure configurations. The first two chapters set the context for such an examination and review the literature pertinent to the historical and contemporary sources of tenure in higher education, the courts in higher education, and alternative-to-tenure configurations. The legal principles were identified primarily from Board of Education v. Roth (1972) and Perry v. Sindermann (1972). Data were also collected from more than 80 additional court cases.

The analysis included three processes. First, the tenure principles were analyzed in terms of the post-1972 court cases and the legal principles to identify which tenure principles have been internalized by the courts. Six tenure principles and nine legal principles are identified. Second, the tenure principles were applied to the alternative configuration to ascertain how alternative-to-tenure configurations may be at odds with the tenure principles. Third, the alternative configurations were considered in light of the courts' reaction to the tenure principles that the alternatives violate; such application permitted inference of the courts' possible reaction to the alternatives. These findings lead to three basic conclusions: (1) neither the alternative-to-tenure configurations nor the courts have altered the classical

structure of tenure, and traditional tenure remains firmly in place; (2) the alternative-to-tenure configurations will withstand legal scrutiny; and (3) the AAUP has had little influence on the courts in encouraging acceptance of the principles of the private legal system of higher education.

The implications of the findings and conclusions are discussed. Three appendices reprint the academic staff policies at three institutions as illustrations of alternative-to-tenure configurations.

Conflicting Pressures in Postsecondary Education. Ed. Robert H. Fenske.  
Association for Institutional Research, Tallahassee, Florida, 1977.

This collection of papers, selected for the 1976 Annual Forum of the Association for Institutional Research at Los Angeles, covers a wide variety of topics relating to faculty development. The report presents the findings of a study on the relationships of faculty accomplishments and faculty rewards in the merit-based salary increase system of state colleges in Kansas, and of the allegation of sex-discrimination in the granting of these rewards. While the sample size (161 respondents, only 24 of whom were female) limits the usefulness of the data presented in this report, the study proves useful as a model for further research in this area.

Another study was initiated "to develop a theoretical model for the allocation of instructional faculty resources independent of discipline"; "to develop student credit hour (SCH) productivity factors by discipline"; and "to contrast the number of faculty members allocated by the theoretical model and the traditional model." The authors describe the development and analysis of this model at Florida Technological University and state that "the procedure provides an equitable, objective method for assessing faculty needs and that "it is readily adaptable to other institutions regardless of size."

A third paper briefly discusses many of the topics to be considered in planning for faculty development. Topics include (1) the pressure of being equalitarian, (2) the role of the institutional researcher, (3) the "publish or perish" pressure, (4) the "faculty work world," (5) the faculty development movement, (6) faculty development as individual freedom -- the laissez-faire approach, (7) faculty development as introduction and initiation, (8) faculty development as career development, (9) faculty development as curriculum reform, (10) faculty development as concept and construct, and (11) faculty development as organizational goal. In addition to a brief description of each of these topics, the author refers the reader to numerous other writings for further study of the particular topics, providing a valuable reference collection.

In discussing the effects of various promotion policies, authors of the final paper present tables of the effects of rank distributions on salary averages. Three promotion philosophies are described: "lock-step promotion," "merit promotion," and "merit promotion with reassessment." The relative advantages and disadvantages of each of these promotion policies are discussed.

Effective Approaches to Faculty Development. Ed. William C. Nelsen and Michael E. Siegel. Association of American Colleges, Washington, D.C., 1980.

Essays are collected on faculty development programs that are felt to have positively affected both the institutions and individual faculty members. They include: Faculty Development: Promises, Realities and Needs; Improving the Scholarly Climate on Campus through a Program of Small Grants; Encouraging Faculty Learning: A Program of Study Leaves; Retraining and Renewing Faculty in a Time of Retrenchment; Renewing Faculty through Faculty Growth Planning; The Teaching Consultant at Teaching-Learning Center: Encouraging Faculty to Share Ideas; Talking about Teaching: The Contributions of Senior Faculty to Junior Faculty; Teaching Workshops for New Faculty Members: Aiding the Transition from Graduate School to Teaching; Common Language: A Faculty Response to Developing Specific Core Curriculum Courses; Developing and Challenging Faculty through Interdisciplinary Teaching-Learning; The Role of a Faculty Committee in Facilitating Development; Corporate Faculty Development: Enhancing Collegiality on Campus; The Consortium Approach to Faculty Development; In Praise of an Interdisciplinary Symposium; Faculty Exchange: Overcoming Academic Calcification; Developing a New Point of View; Learning with a Colleague; Old Dog, New Tricks; Empirical Findings on Faculty Development Programs; and Faculty Development: Perceived Needs for the 80's.

Evaluating Faculty Performance and Vitality. New Directions For Institutional Research Series, Wayne R. Kirschling, Guest Ed. Jossey-Bass, Inc., San Francisco, California, 1978.

Produced from efforts by the National Center for Higher Education Management and Systems (NCHEMS), this sourcebook explores how faculty performance might be enhanced. Both the traditional concept of performance and the critical quality of vitality are discussed. Vitality includes not only survival skill but purposeful existence and, more importantly, mental vigor. It differs from performance in terms of quality and breadth of vision.

Special chapters discuss personnel policies as they affect vitality of faculty activity; the impact of collective bargaining in traditional university relationships; and the need for revolutionary changes -- most specifically in attitudes about faculty motivation. Several chapters relate vitality to its impact on teaching and the uses to which student feedback are put. Also covered is a model for early retirement and mid-career changes out of academe as a way of renewing faculty vitality.

Faculty Career Development, Current Issues in Higher Education. American Association for Higher Education, Washington, D.C., 1979.

This collection of papers reviews what is known about faculty productivity, attitudes, satisfactions, and career growth with the underlying theme of individual and institutional cooperation to achieve complementary growth.

Everett Ladd, reviewing survey data on factual descriptions of professors' activities, committees, and concerns, finds most faculty thinking of themselves as teachers and professors, not as researchers or scholars. More than 60 percent of faculty have never published a book and fewer than one in four have published extensively. Only 7 percent of the faculty members reported they would like to spend less time teaching and more time in research. Several tables summarize these statistics. In the second half, Ladd describes what he calls the rise of the norm of research and discusses its disadvantages.

Robert T. Blackburn makes the point that any generalizations about faculty career must be contingent on institutional type, discipline, gender, and the faculty member's primary tasks, i.e., research, teaching, and governance. Nine assertions about academic careers are made, including the idea that faculty productivity is predictable and determined to a high degree by the institution and by organizational factors, such as how time is structured and selection of colleagues.

Barbara Lazarus and Martha Tolpin, concentrating on junior faculty members, discuss cooperative efforts that have been successful in helping faculty negotiate the political and social hurdles of the academic profession.

Allan O. Pfnister, Jill Solden, and Nina Veraoca describe a renewal strategy--the growth contract. These researchers examined the viability of the growth contract as a planning strategy by testing its underlying assumptions on faculty at a complex university. More objection to, rather than support for, the notion was found, especially for the concept of differentiated assignments, changes in the reward system, and structured departmental planning.

Nontenure-Track Science Personnel: Opportunities for Independent Research.

Irene L. Gomberg and Frank J. Atasek. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1978.

The purpose of this study was to determine the size and characteristics of nontenure-track personnel, especially in health related fields, and to determine the proportion of this population seeking outside support as principal investigators in research projects. About 45% of the sample were eligible to apply for federal research support as principal investigators; 18% had applied; 11% had received support. Public institutions and medical science departments showed greater proportions of those applying for and receiving support. Policies and practices identified about 20% of the responding departments as having formal policy regulating the application process and 60% encouraged or allowed nontenure-track faculty to seek outside support.

Publication, Teaching, and the Academic Reward Structure. Howard P. Tuckman. Lexington Books, Lexington, Massachusetts, 1976.

This examination of the academic reward structure at American universities involves an analysis of the marketplace for academic labor and an empirical investigation of the reward structure in several of the different disciplines found in the modern university. The merit raise, the annual salary increment, promotion, and career options are examined. Elements seen to relate to these dimensions include the interrelatedness of academic markets, sex discrimination, variations by academic discipline, publication, allocations of faculty time, and alternative determinants of faculty salary. The ways in which faculty derive pleasure or discomfort from the activities they perform are seen as highly complex, extremely subtle, and beyond the expertise of the economist, and are not considered in this analysis.

Successful Faculty Evaluation Programs: A Practical Guide to Improve Tenure Decisions. Peter Seldin. Coventry Press, New York, 1980.

This study of faculty evaluation programs includes information from about seven hundred institutions. Chapters on faculty evaluation include information on student, colleague, and self-evaluation, as well as reviews of teaching, research, publication, student advising and institutional service.

According to the author, deans and department chairmen most often evaluate teaching performance, but rely heavily on student ratings. They also are the individuals who most often evaluate research and publications, although public institutions ascribe more importance to this aspect of performance than do private ones. College service is most often interpreted as advising and committee work. Evaluation models and extensive bibliographies, literature review, checklists, and appraisal forms are included.

Tenure. Current Issues in Higher Education No. 6. American Association for Higher Education, Washington, D.C., 1979.

The question of the viability of tenure for college faculty is considered in three papers. In "The History of Tenure," Walter P. Metzger considers the history of academic tenure and the history of opposition to this practice. It is concluded that tenure continues to be a vital institution and has provided a better quality faculty. Its important historical contribution has been to provide due process by peers for faculty threatened with dismissal. In order to provide tenured positions for junior faculty, it is proposed that higher education be exempt from the necessity of raising the retirement age to 70. In "The Poverty of Historicism: A Critique of Walter Metzger's Defense of Tenure," James O'Tolle suggests that the disadvantages of tenure outweigh the advantages. Disadvantages include immobility or lack of career options for the tenured professor: the tendency to tenure individuals who do not give offense or make intellectual waves the pressure to publish for its own sake; and putting power in the hands of senior faculty members to impose doctrinal orthodoxy on untenured junior faculty, thus restricting academic freedom. In "The Concept of Tenure and an Alternative," Penina M. Glazer describes how the contract system can work, based on the experience of Hampshire College, which has never had tenure and which does have multiple-year contracts.

Tenure and Termination in Financial Exigency: Report No. 3. Margorie C. Mix. American Association for Higher Education/ERIC, Washington, D.C., 1978.

This succinct monograph presents a cogent discussion of the status of tenure during times of financial exigency. Tenure, Mix points out, has never been guaranteed under conditions of financial exigency, and the courts have been inclined to accept the opinion of administrators in such matters. The first part of the monograph briefly sketches the historical development of the concept of tenure through the founding of the AAUP and the 1940 "Statement of Principles on Academic Freedom and Tenure" by the AAUP and the Association of American Colleges. Another section discusses the principle of tenure vis-a-vis the law, emphasizing the point that the legal basis for redress on

the part of faculty is different in public and private colleges. In public institutions, claims based on the 14th Amendment and due process are recognized; in private institutions, the personal service contract nature of employment takes precedence over the due process clauses of the Constitution. A review of court cases shows that no matter how the Constitution is interpreted, tenure is not enforceable if financial exigency is claimed and supported.

The author offers two solutions, one informal and one formal. The informal solutions rely on developing a consensus among faculty and administrators on criteria for determining financial exigency and the proper remedial course of action. The AAUP has offered a three-stage model for faculty participation in this process, which the author reviews. The formal alternative relies on interpreting tenure as a condition of employment and, thus, bargainable under collective bargaining legislation. Mix discusses what is involved in arriving at such a determination and how criteria for financial exigency and tenure abrogation can be negotiated.

Young Doctoral Faculty in Science and Engineering: Trends in Composition and Research Activity. Frank J. Atisek and Irene L. Gomberg. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1979.

This survey continues the study of faculty composition in science and engineering departments at Ph.D. granting institutions. An average 24% of total faculty was considered "young" (received doctorate in past seven years). More younger faculty could be found in private institutions. All young faculty submitted at least one research proposal a year and their success rate was 63% compared to 67% for senior faculty. Links with earlier studies are also shown in the report.



Addresses of Publishers and Associations:

American Association for Higher Education, One Dupont Circle, N.W.,  
Washington, D.C. 20036

Association of American Colleges, 1818 R Street, N.W., Washington, D.C.  
20009

Ballinger Publishing Co., 54 Church Street, Cambridge, Massachusetts  
02138

Jossey-Bass, Inc., 615 Montgomery Street, San Francisco, California,  
94111

Lexington Books, Lexington, Massachusetts 02173

5. International Studies Issues  
Section Contents

Adviser's Manual of Federal Regulations Affecting Foreign Students and Scholars

The Administration of Intensive English Language Programs

Ed. Ralph Pat Barrett

Expanding the International Dimension of Higher Education

Barbara B. Burn

Federal Support for International Studies: The Role of NDEA Title VI

Lorraine M. McDonnell et al

Foreign Participation in U.S. Science and Engineering Higher Education and Labor Markets

Foreign Student Advisers and Learning With Foreign Students

Josef A. Mestenhauser and Dietmar Barsig

The Foreign Student in American Graduate Schools

Foreign Student Recruitment: Realities and Recommendations

Ed. Hugh M. Jenkins

Foreign Students and Institutional Policy

Intercultural Sourcebook

Ed. D.C. Hoopes and P. Ventura

Learning Across Cultures: Intercultural Communication and International Educational Exchange

Ed. Gary Aithen

Needed: A New Graduate International University System for the Twenty-First Century

W. Paul Fisher

Needs of Foreign Students From Developing Nations at U.S. Colleges and Universities

Motoko Y. Lee, Mokhtar Abd-Elila, and Linda A. Burles

Open Doors: 1979/80

Ed. Douglas R. Boyan

Scientific and Technical Cooperation with Developing Countries

Frank J. Atelsek and Irene L. Gomberg

"Traditional Programs Fall Short"

John B. Swanson

The World in the Curriculum

Humphrey Tonken and Jane Edwards

Adviser's Manual of Federal Regulations Affecting Foreign Students and Scholars.  
National Association for Foreign Student Affairs, Washington, D. C., 1982.

This loose-leaf manual is a handy reference for those involved in international educational exchange. Topics covered include immigration law as well as information on visas, passports, alien registration, extension of temporary stay and change of classification for nonimmigrants. Definitions and requirements to satisfy various status codes are included as well as labor and employment limitations. Sample forms are appended and a list of visa-issuing posts and immigration centers are included. The brevity and excellent table of contents make this a handy reference for professionals who work with foreign students.

The Administration of Intensive English Language Programs. Ed. Ralph Pat Barrett. National Association for Foreign Student Affairs, Washington, D. C., 1982.

Includes fourteen essays on the many aspects of I.E.L. programs, including "Students, Faculty, Program, Testing and Evaluation, and Research." The essays provide information on administering such programs, developing curricula, using learning laboratories, faculty selection and development, and evaluating students. A valuable part of this book is the inclusion of several bibliographies by the essayists, most of whom are directing I.E.L. programs.

Expanding the International Dimension of Higher Education. Barbara B. Burn. Carnegie Council on Policy Studies in Higher Education, Jossey-Bass, Inc., San Francisco, 1980.

Those who need to justify our training of foreign students in this country will find ample rationale for the foreign student in our universities. The corresponding case for our students, generally, to be knowledgeable and able to function in the international arena, is also made. In the book's introduction, Clark Kerr makes the point that "higher education has not been leading. It has not only been following; it has been going in the wrong direction." That indictment is made as a result of the study's purpose: to review the current status of international education in higher education. A second purpose of the study is to identify current and future needs. Both the undergraduate and the graduate and research areas in higher education are addressed.

Federal Support for International Studies: The Role of NDEA Title VI. Lorraine M. McDonnell et al. Rand, doc. R 2770-ED, Santa Monica, 1981.

Contains recommendations for selecting activities within Title VI to "maximize program efficiency despite limited resources."

Recommendations include changing area centers' programs to eliminate humanities and stress job training and tighten up review panels and review procedures. Similar recommendations are aimed at Foreign Language Area Studies Programs, Graduate and Undergraduate Studies Programs, and Research Programs.

The study also recommends the introduction of performance indicators to evaluate how each of the programs grades out on the bottom line. Despite all this, the publication is useful in its in-depth look at the history and import of Title VI in international studies.

Foreign Participation in U.S. Science & Engineering Higher Education and Labor Markets. National Science Foundation, report 81-316, Washington, D.C., 1981.

Includes data on fields of science and engineering of study, institutional distribution, etc. Also includes projections of enrollments, degree production, and implications for the U.S. labor market. One full chapter is devoted to statistics on foreign post-doctorates in science and engineering.

Foreign Student Advisers and Learning With Foreign Students. Josef A. Mestenhauer and Dietmar Barsig. National Association for Foreign Student Affairs pub. 00178, Washington, D. C. (n.d.)

Discusses involving foreign students in regular university courses in disciplines with international and intercultural dimensions. The program goes beyond mere "speakers programs" and shows how foreign student involvement may be integrated into the curriculum. Case studies and theory are both provided.

The Foreign Student in American Graduate Schools. The Council of Graduate Schools in the United States, Washington, D.C., 1981.

This short (22 pages) monograph by the CGS Committee on International Education is a self-described primer for graduate deans in the broad area of international graduate education. The authors deal with questions such as modifying the curriculum, granting assistantships to foreign students, recruiting, and admissions processes. In all cases, a balanced set of opinions are presented; pros and cons are examined and a few recommendations, heavily laced with caveats, are made. This pamphlet is essential as a first overview of foreign student graduate education.

Foreign Student Recruitment: Realities and Recommendations. Ed. Hugh M. Jenkins. College Entrance Examination Board, New York., 1980.

This monograph reports on a colloquium held in March, 1980, to examine the current state of recruitment of foreign students and to identify existing abuses. The

report reflects the thorough discussion held of recruitment process, its abuses, and potential causes for abuse. Plans are proposed to maintain standards and improve practices. Also suggested are criteria for admission in an effort to offer guidance to institutions responsible for the recruitment of foreign students. Fees for enrollment agents were identified as a significant problem in creating realistic expectations for students. Students coming to the U.S. to learn English need to be clear about the distinction of that experience and their expectation about admission to college. Equally important is the need to match the student goals and expectations with institutional programs which fit those needs.

Foreign Students and Institutional Policy. A report of the Committee on Foreign Students and Institutional Policy, American Council on Education, Washington, D.C., 1982.

This report describes the ways in which foreign students affect institutions of higher learning. After a discussion of increasing numbers of students, a description of the role of national, state and institutional policy is provided. Institutional concerns and the concerns expressed by foreign students are reviewed. Finally, the discussion is related to the international context of sending and receiving students. Recommendations for action are made to national associations as well as to individual institutions and university systems. Appended are the "Wingspread" principles and "Principles of Institutions" from N.A.F.S.A.

Intercultural Sourcebook. Ed. D.C. Hoopes and P. Ventura. Society for Intercultural Education, Training, and Research, Washington, D.C., 1978.

The book discusses American culture and Americans from a foreign viewpoint to help Americans "see ourselves as others see us." It also includes an interesting and often-used framework for cultural comparison.

Learning Across Cultures: Intercultural Communication and International Educational Exchange. Ed. Gary Althen. National Association for Foreign Student Affairs, Washington, D. C., 1981.

The book is an attempt to reduce the friction and misunderstanding that often accompany intercultural communication. Topics addressed include cross-cultural counseling, cross-cultural training, intercultural perspectives of English language teaching, cross-cultural adjustment, learning concepts and styles, and two case studies. The book also includes several valuable bibliographical lists for further study.

Needed: A New Graduate International University System for the Twenty-First Century. W. Paul Fisher. Available through ERIC (ED 176 642), 1979.

A Graduate International University System is proposed. Past efforts, such as the Fulbright Act, are reviewed and the need for an international approach to graduate education is explored. A wider definition for the meaning of a university which encompasses a program of immersive experiences and personal interaction is suggested. The new system would include advanced study, professional educational work experience, and special studies related to language, culture, and customs, and would take place in a foreign setting. A main component of the program design would be the teaming of educators in work-related experiences; ideas, skills, and knowledge would be exchanged through active and cooperative involvement. The system would provide a coordinated organization of institutions that would offer reciprocal credits, and the faculty at each institution would be chosen to be internationally representative. Funding for the venture could be found in the framework of the NATO and SEATO pacts. Additional funding could come from such sources as the World Bank, and grants and scholarships from international professional organizations.

Needs of Foreign Students From Developing Nations at U.S. Colleges and Universities. Motoko Y. Lee, Mokhtar Abd-Ella, and Linda A. Burles. National Association for Foreign Student Affairs, Washington, D. C., 1981

"Despite the large numbers of foreign students . . . entering U.S. institutions of higher education each year, very little is done by our universities and colleges to orient these newcomers to life and study here." This book attacks the problem of the seeming indifference of American higher education, both in personal and curricular terms, to the problems encountered by foreign students from developing nations. Lee et al also discuss various programs in place or recommended that may help foreign students complete satisfactory educational experiences in the U.S. The recommendations are the result of a survey administered by Ms. Lee to foreign students and others engaged in international education and counseling.

Open Doors: 1979/80. Ed. Douglas R. Boyan. Institute for International Education, New York, 1981.

Statistical report of foreign students in the U.S. in the year noted in the title (projected as a yearly publication). Includes census of foreign students, distribution by state, expenditures, distribution by institutions, etc. Valuable sourcebook.

Scientific and Technical Cooperation with Developing Countries. Frank J. Atelsek and Irene L. Gomberg. Higher Education Panel Reports, American Council on Education, Washington, D. C., 1978.

The Higher Education Panel is a survey research program established by the American Council on Education for the purpose of securing policy related information quickly, from representative samples of higher education institutions. The reports are designed to communicate survey findings to policy makers in government, the associations and colleges and universities in the United States.

This report reviews the numbers of foreign students studying in science, engineering, health, business or management fields. 52% were postbaccalaureate, and 3% postdoctoral appointments. 32% of the postbaccalaureate, and 64% of the postdoctoral students received financial support from U.S. sources. 6% of the former and 15% of the latter received federal support. The report also reviews faculty participating in cooperative scientific and technical activities with developing countries.

"Traditional Programs Fall Short." John R. Swanson. Agricultural Education Magazine, 52 (July, 1979) p5,8.

Briefly describes problems existing in training of international graduate and undergraduate students studying agricultural education in U.S. universities. Discusses eight questions related to agricultural education programs and their relevance to the international student.

The World in the Curriculum. Humphrey Tonken and Jane Edwards. Change Magazine, New Rochelle, N.Y., 1981.

A comprehensive view of the place of internationalism in education, including international studies, language studies, exchange programs, foreign students in America, etc. Includes strategies for implementing revised curricula, models for new programs, faculty hiring formulae and all anyone ever wanted to know about truly international education.

The book is very interesting in its approach and the authors include some surprising details about the value of international education. The bibliography is also exhaustive and extremely useful.

## Addresses of organizations active in international studies issues:

The African-American Institute, 833 United Nations Plaza,  
New York, N.Y. 10017

American Association of Collegiate Registrars and Admissions  
Officers, Suite 330, One Dupont Circle, N.W., Washington, D.C. 20036

Consortium for International Cooperation in Higher Education,  
Suite 616, One Dupont Circle, N.W., Washington, D.C. 20036

Council for International Exchange of Scholars, Suite 300,  
11 Dupont Circle, N.W., Washington, D.C. 20036

International Council on Education for Teaching, Suite 616,  
One Dupont Circle, N.W., Washington, D.C. 20036

Institute of International Education, 809 United Nations Plaza,  
New York, N.Y. 10017

National Association for Foreign Student Affairs, 1860 19th Street,  
N.W., Washington, D. C. 20009

United States Information Agency, 1776 Pennsylvania Avenue, N.W.,  
Washington, O.C. 20547

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6. International Study -- Guides and Handbooks  
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Algeria: A Study of the Educational System of Algeria and a Guide to the Academic Placement of Students in Educational Institutions of the United States  
David W. Mize

Centers of Learning: Britain, France, Germany, United States  
Joseph Ben-David

"A Guide to Scholarships, Fellowships, and Grants: A Selected Bibliography"  
Kathleen Slowik and Diane D'Angelo, compilers

Handbook on the Placement of Foreign Graduate Students

Innovations in Higher Education. Exchange of Experiences and Ideas in International Perspective

The Republic of China (Taiwan): A Study of the Educational System of the Republic of China and a Guide to the Academic Placement of Students in Educational Institutions of the United States  
Patrick J. Kennedy

Syrian Arab Republic: A Study of the Educational System of the Syrian Arab Republic and a Guide to the Academic Placement of Students in Educational Institutions of the United States  
Garland G. Parker

Training for African Development: A Guide to Selected Graduate Programs in the United States  
Carolyn Brown, Cheryl Danley and Bilkis Wolde Giorgis

Twelve Systems of Higher Education: Six Decisive Issues  
Clark Kerr et al

U.S. College-Sponsored Programs Abroad: Academic Year  
Ed. Gail A. Cohen

Venezuela: A Study of the Educational System of Venezuela and a Guide to the Academic Placement of Students from Venezuela in Educational Institutions of the United States  
Gary Hoover

Algeria: A Study of the Educational System of Algeria and a Guide to the Academic Placement of Students in Educational Institutions of the United States. David W. Mize. American Association of Collegiate Registrars and Admissions Officers, Washington, D.C., 1978.

Written as a guide to be used in the admission and placement of Algerian students in U.S. institutions of higher education, this study discusses the educational system of Algeria. The organization of Algerian education is summarized. General considerations for admissions such as standards, English language proficiency, and required documents are examined, followed by recommendations for placement of students in primary schools, adult education programs, middle schools, secondary schools, tertiary education institutions, and graduate and professional education institutions.

Centers of Learning: Britain, France, Germany, United States. Joseph Ben-David. Carnegie Commission on Higher Education, McGraw-Hill Book Co., New York, N.Y., 1977.

The author, an authority in international education systems, examines major functions in the Western systems of education noted in the title. Education for the professions, research and training for research, social criticism, social justice, and equality are the comparative functions discussed. The basic premise is that the study of higher education as a continuously developing system will render some perspective on the current disorientation in higher education which is caused by the unexpected rate of change. A concluding chapter of recommendations calls for a consolidation of research forces and a re-evaluation of the politics of education in an age of exploding information.

"A Guide to Scholarships, Fellowships, and Grants: A Selected Bibliography." Kathleen Slowik and Diane D'Angelo, compilers. Institute of International Education, Communications Division, New York, 1982.

Although labeled "a selected bibliography," this annotated bibliography contains most of the important sources of student funding.

This is in fact a list of lists; the compilers have listed and described over 75 publications that contain specific information on funding. The lists range from International Foundation Directory (\$65) to List of Organizations that Accept Applications for Financial Support from Foreign Citizens Who Are Already in the United States (\$75). "A Guide . . ." (free) can be a valuable resource for building a library of international funding information.

Handbook on the Placement of Foreign Graduate Students. (Graduate Handbook, Part III.) National Association for Foreign Student Affairs, Washington, D.C., 1981.

Part III of the Handbook provides outlines of twenty-six countries (Part I reviewed thirty-four countries) which send students to study in this country. Outline information includes an overview of the educational system, the names, hierarchy and requirements of certificates granted, the grading system, recommendations for placement into U.S. graduate programs, and a short bibliography. The purpose of the handbook is to serve as an initial guide to the admission and placement of international graduate students. It should not be used exclusively; rather, it should be supplemented with institutional policies and practices as well as with material for the bibliography. It is, however, a handy quick reference which should prove quite useable.

Innovations in Higher Education. Exchange of Experiences and Ideas in International Perspective. Research Institute for Higher Education. Hiroshima University, Hiroshima, Japan, 1981.

A report of two international conferences on higher education, this volume generally compares the higher education systems of Austria, Japan, Sweden, the United Kingdom, and the United States. While not specific to graduate education, the general treatment of higher education as a total system is relevant to many graduate school interests. Innovations, non-university programs, curricular development and reform, and use of hardware are included in the proceedings of the first conference.

The second conference report discusses factors of achievement and failure in European systems, innovative teaching in Asian countries, and the process of innovations in the U.S., including linkages between universities and non-universities.

The Republic of China (Taiwan): A Study of the Educational System of the Republic of China and a Guide to the Academic Placement of Students in Educational Institutions of the United States. Patrick J. Kennedy. American Association of Collegiate Registrars and Admissions Officers, Washington, D.C., 1977.

Written as a guide to be used in the admission and placement of students from the Republic of China (Taiwan) in U.S. institutions of higher education, this study discusses the educational system of Taiwan. Facts about the country, the history of Taiwan, the history of education, and some future considerations are summarized. The Taiwan system of education and its organization are described. Information is also provided on theological institutions. Following a discussion of Taiwan regulations governing students studying abroad and evaluating credentials, recommendations for placement of students in U.S. institutions are provided. The appendices contain a list of tertiary institutions and qualifications of teachers in the Republic of China.

Syrian Arab Republic: A Study of the Educational System of the Syrian Arab Republic and a Guide to the Academic Placement of Students in Educational Institutions of the United States. Garland G. Parker. American Association of Collegiate Registrars and Admissions Officers, Washington, D.C., 1978.

Written as a guide to be used in the admission and placement of Syrian students in U.S. institutions of higher education, this study discusses the educational system of Syria. Facts about the country, the history of modern Syria, and the history of its education are summarized. The educational system of Syria is described. Special considerations for admissions officers, such as student financial aid and military service obligations, English language proficiency, and credentials evaluation and translation, are examined followed by placement recommendations.

Training for African Development: A Guide to Selected Graduate Programs in the United States. Carolyn Brown, Cheryl Danley and Bilkis Wolde Giorgis. African-American Institute, New York, N.Y., 1982.

This manual is intended as a guidance tool to help foreign students, especially African and Caribbean students, seeking admission into graduate programs in American colleges and universities. Specific disciplines relevant to these developing countries include Agriculture, Economics, Public Health and Planning/International Affairs/Public Administration. The guide provides specific program information for schools enrolling foreign students in these disciplines, an explanation of the admissions procedure, cost, sources of financial aid, a description of support services available to these populations and, where available, the numbers of similar students enrolled in a given program and a statement about the specialized expertise of the faculty of each program. Special attention is given to women's studies and programs which give attention to the role of women in developing countries. Language requirements and the location of English Language Training Centers for Foreign Students are also given, although no indication is given that this directory has been translated into the native languages of the target populations. The guide serves as a specialized directory for foreign students interested in identifying an American university and a relevant program of study.

Twelve Systems of Higher Education: Six Decisive Issues. Clark Kerr et al'. International Council for Educational Development, New York., 1978.

The twelve higher education systems studied were from Australia, Canada, Federal Republic of Germany, France, Iran, Japan, Mexico, Poland, Sweden, Thailand, the United Kingdom, and the United States. The issues, each of which is discussed in a separate chapter by a separate author, are:

Goals for Higher Education; Planning and Management in National Structures; Coordination, Flexibility and Innovation; Measurement of Efficiency and Comparative Effectiveness of Systems.

Although not specific to graduate education, this is a brief, comparative history of the systems which generate a significant pool of our foreign students. The monograph is also helpful as a study of higher education in the 20th century across cultures.

U.S. College-Sponsored Programs Abroad: Academic Year. Ed. Gail A. Cohen. Institute of International Education, New York, N.Y., 1982.

A practical guide to sponsored semester programs in Africa, South Asia, Europe, Middle East and the western hemisphere. While most programs are for undergraduates, some listings are for graduate programs only. Each is clearly identified. A list of additional directories and handbooks as well as an index of universities are included.

Venezuela: A Study of the Educational System of Venezuela and a Guide to the Academic Placement of Students from Venezuela in Educational Institutions of the United States. Gary Hoover. American Association of Collegiate Registrars and Admissions Officers, Washington, D.C., 1978.

Written as a guide to be used in the admission and placement of Venezuelan students in U.S. institutions of higher education, this study discusses the education system of Venezuela. The role of education in modern Venezuela and the educational structure are summarized. Special considerations for admissions officers, such as educational documents and document verification and recordkeeping, are examined, followed by placement recommendations. Venezuelan institutions of higher education and non-university institutions or agencies offering graduate study are listed in the appendices.

## Addresses of organizations active in international studies issues:

The African-American Institute, 833 United Nations Plaza,  
New York, N.Y. 10017

American Association of Collegiate Registrars and Admissions  
Officers, Suite 330, One Dupont Circle, N.W., Washington, D.C. 20036

Consortium for International Cooperation in Higher Education,  
Suite 616, One Dupont Circle, N.W., Washington, D.C. 20036

Council for International Exchange of Scholars, Suite 300,  
11 Dupont Circle, N.W., Washington, D.C. 20036

International Council on Education for Teaching, Suite 616,  
One Dupont Circle, N.W., Washington, D.C. 20036

Institute of International Education, 809 United Nations Plaza,  
New York, N.Y. 10017

National Association for Foreign Student Affairs, 1860 19th Street,  
N.W., Washington, D. C. 20009

United States Information Agency, 1776 Pennsylvania Avenue, N.W.,  
Washington, O.C. 20547

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7. The Job Market for Graduate Students  
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W. Charles Redding

"Hitch Your Wagon to a Star: Confessions of a Postacademic Job Seeker"

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U.S. Faculty After the Boom: Demographic Projections to 2000

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Roger B. Smith

Young Doctorate Faculty in Selected Science and Engineering Departments 1975 to 1980

Frank J. Atelsek and Irene L. Gomberg

The Closing System of Academic Employment. Cameron Fincher, et al. Southern Regional Education Board, Atlanta, GA., 1978.

The trend toward increasingly limited opportunities for careers in colleges and university research, teaching, and service and possible courses of action to deal with the situation are discussed in this collection of papers. The focus is largely on decisions to be made on the individual college or university campus. Responses that the educational administrators can take to cope with the expected over-expansion of academic manpower in relation to the number of positions available include: action for effectiveness in utilization of faculty under so-called steady-state conditions; and steps toward improved adaptation of graduate educational programs, which are the primary source of academic manpower. Papers presented include: "Demand For New Faculty in the South, 1976-1986"; "Responding With Quality"; "Career Options and Program Changes in Graduate Education;" and "Influencing Academic Outcomes: The Power and Impact of Statewide Program Review." Enrollment assumptions on which the demand projections are based are included in the appendix.

"Employment Prospects for Graduates With Advanced Degrees," Helen S. Astin, UCLA Educator, 19 (Spr. 1977), 32-40.

Considers some issues and questions for future research and action which could benefit persons presently in graduate schools and those who will come later for advanced degrees. Focuses on the labor market's ability to absorb all trained human resources, whether people use their skills or education in their occupations, and the implications of affirmative action for these issues.

"The Future Shortage of Faculty: A Crisis in Engineering," Eugene Chesson, Engineering Education, 70 (Apr. 1980), 731-38.

Discusses the problems of the future shortage of engineering faculty and the substantial decline in the number of Ph.D. students. The external and the internal factors of these problems are also discussed.

"Graduate Education and the Communication Consultant: Playing God For a Fee." W. Charles Redding, Communication Education, 28 (Sept. 1929), 346-52.

Discusses the prospects, for graduate students, of careers as communication consultants. Argues that consulting is an appropriate nonacademic career option for some graduates, but that it requires rigorous, specialized preparation.



"Hitch Your Wagon to a Star: Confessions of a Postacademic Job Seeker." Richard H. Gamble, Profession 80 (Modern Language Association), New York, 1980. pp. 20-23.

Speaking from his own difficult experience, Gamble describes the travails of a humanities Ph.D. and ex-faculty member looking for work outside of higher education. He discusses his strategies, what worked and what did not work, how to interview, and how to keep a positive attitude. He also offers advice to English department chairs for advising graduate students on job expectations.

How to Find a Job: Exit Booklet for Graduate Students. Sharon Bibb, et al. University of Washington, Seattle Office of Affirmative Action for Women, 1976.

This booklet is prepared for the graduate community with the intent of helping students find employment at the end of their studies. Some information is specific to the University of Washington, but much could be used by graduate students of any institution. Resources within the community as well as within the university are outlined, and techniques for finding jobs are described: resume writing, letter writing, the job interview, jobs in higher education, government jobs, and one's rights as a job-seeker (fair and unfair pre-employment inquiries). Information is supplied by University of Washington departments about employment in those professional fields. The information includes job possibilities, job advertising sources, professional societies in the field, and other relevant information.

"Is a Career Part of Life? Preparing Graduate Students for Today's Job Market," Zelda F. Gamson. Liberal Education, 65 (Winter 1979), 462-69.

The professional and personal constraints caused by the present job market are examined. Methods that advisors, teachers, and potential employers can use to help prepare graduate students to meet the difficulties are discussed.

"Labor Markets for New Science and Engineering Graduates in Private Industry." Science Resources Studies Highlights, National Science Foundation (June 1982), 1-5.

One of the remarkable conclusions of this study is that in non-academic employment, there is little perception of a shortage of doctoral-level people in science and engineering fields. Even in computer science, about 75% of the employers surveyed reported adequate or surplus numbers of qualified candidates. The only field with a significant Ph.D. shortage was chemical engineering. In some engineering and most science fields, surpluses of Ph.D.-trained people were reported; the surpluses, however, may be a result of a weak economy rather than a long-term weakness in the employment area.

Science Resources Studies Highlights regularly publishes employment survey results throughout the year. This is one of many useful surveys published in 1982.

Ph.D.'s in Business and Industry. Betty D. Maxfield and Andrew W. Spisak. National Academy of Sciences, Washington, D. C., 1979.

This report defines the population of Ph.D. scientists and engineers in the U.S. (included are Life Sciences, Psychology and the Social Sciences, as well as the hard science disciplines). Demographic information on this population is supplied and the total numbers of Science and Engineering doctorates are compared with those employed by science and industry. Observed changes between 1973-1977 are analyzed. Salary distributions are examined and the mobility of those scientists working in business and industry is compared with the rest of the Science and Engineering Ph.D. labor force. Numerous charts showing the specific field of employment as well as Ph.D. disciplines are included. The survey instrument used is appended.

"Ph.D.'s in Non-Academic Careers: Are There Good Jobs?" Lewis C. Solmon, Current Issues in Higher Education, American Association for Higher Education, Washington, D.C., 1979.

This article reviews the academic demands for Ph.D.'s in a variety of disciplines and current enrollment trends in those disciplines. Current satisfaction indicators are reviewed in non-academic job settings where Ph.D.'s work -- sometimes in their field, and more often for humanists, outside their fields. Finally, recommendations are made to graduate students suggesting that competencies acquired outside their graduate program may be their most important qualities. Students are encouraged to seek sources other than their graduate advisors for assistance since few academics know anything about getting jobs outside of academe; further, academics tend to minimize the perils of the job market.

The Ph.D. Job Crisis. ERIC/Higher Education Research Currents. David A. Trivett. ED 148257. Association for Higher Education, Washington, D.C., 1977.

A review of the current literature addresses the questions: What is the extent of placement difficulty or unemployment among the recent crops of Ph.D.'s? What are the causes and explanations given for whatever market imbalance exists? What are the long-term employment market projections for Ph.D.'s? What employment-promoting steps can those individuals take who have invested their lives in graduate study? One conclusion is that the major change in response to the problem is the recognition that, when looked at from new perspectives, the Ph.D. job crisis is a problem of attitude among graduate students.

"Ph.D.'s: Moving Into a Non-Academic Setting," James J. Krolick, Journal of College Placement, 39 (Feb. 1979), 63-4.

Describes a counseling program established at the University of Michigan to help current graduate students and recent Ph.D. recipients explore nonacademic career opportunities.

Recruitment and Retention of Full-Time Engineering Faculty. Frank J. Atelsek and Irene L. Gomberg. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1981.

The purpose of this study was to assess the extent of faculty vacancies in colleges of engineering, the effects of such vacancies on research and teaching, and the nature of competition between academe and industry in hiring engineering graduates. The report reveals that 10% of full-time engineering faculty positions were unfilled at the beginning of Fall 1980, teaching loads are increasing since undergraduate student numbers are growing, and institutions are finding it increasingly difficult to attract and retain qualified faculty. In 1979-1980 2.7% of the permanent, employed faculty voluntarily left academe for industry.

Underemployed Ph.D.'s. Lewis C. Solmon, et al. Lexington Books, Lexington, MA., 1981.

This book discusses the results of five years of research on the job market for Ph.D.'s. Initial studies probed the problem of a job market for persons whose Ph.D. was in the humanities; later studies reviewed the problems faced in science and engineering fields.

This book is an excellent source of information on the nature of supply and demand and the quick reversals from surplus to shortage unless long-range planning is involved in policy decisions affecting the supply of a trained work force. Particularly useful may be the chapter on proposed solutions. After an introductory chapter, Part I reviews the crisis in the humanities. Public sector employment and other nonacademic jobs are studied for job satisfaction, salary, entry requirements and relationship of graduate programs to actual work activity. Unique characteristics of the female Ph.D. are reviewed. Part II reviews components of nonacademic careers in Science and Engineering. Salary, employer types, primary work activity, job satisfaction, relationship of graduate training to job activity, and dynamics of job change are assessed. Numerous tables are available. Questionnaires used are appended.

U.S. Faculty After the Boom: Demographic Projections to 2000. Project on Quantitative Policy Analysis Models of Demand and Supply in Higher Education, Technical Report No. 4. Luis Fernandez. Carnegie Council on Policy Studies in Higher Education, Berkeley, CA., 1978.

Based on the assumption that during the next two decades the academic labor market will be chronically depressed, a project was undertaken to create models for projecting college faculty demographics. In this report the statistical models and the results of their application are explained in detail, including extensive statistical tables. Among the issues examined are: the effect of variation in enrollment growth; the results of allowing the rate of faculty promotion to fluctuate with excess demand (supply) of faculty; the results of increasing the

level of outmigration of tenured and nontenured faculty from academe; the impact of the current elimination of mandatory retirement and the impact of programs that encourage faculty to retire early; and doctorate women and their future representation in academe.

Why Business Needs the Liberal Arts. Roger B. Smith. Council for Financial Aid to Education, New York, NY.

The need for generalists to function as business leaders is described in the criteria used by General Motors to recruit liberal arts majors and specialists who demonstrate a "wide range of knowledge and interest." This short monograph describes the General Motors program and articulates a rationale for such a program.

Young Doctorate Faculty in Selected Science and Engineering Departments 1975 to 1980. Frank J. Atelsek and Irene L. Gomberg. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1976.

This report is a survey of "young" (defined as having completed doctorate in past seven years) doctorates being added to science and engineering faculty; projection of numbers for next five years and institutional steps being taken to change practices. The desirable proportion for new faculty was estimated to be 30%, and most departments surveyed fall below that. Early retirement, lengthening probationary periods for tenure and hiring in "young, new" faculty were seen as ways to alleviate the problem.

## Addresses of publishers and associations:

American Association for Higher Education, One Dupont  
Circle, N.W., Washington, D.C. 20036

American Society for Engineering Education, 11 Dupont  
Circle, N.W., Washington, D.C. 20036

Carnegie Commission on Policy Studies in Higher Education,  
2150 Shattuck Avenue, Berkeley, CA 94704

Higher Education Panel, American Council on Education, One  
Dupont Circle, N.W., Washington, D.C. 20036

Lexington Books, Lexington, MA 02173

National Academy of Sciences, 2101 Constitution Avenue, N.W.,  
Washington, D.C. 20418

Science Resources Studies, National Science Foundation,  
Washington, D.C. 20550

Southern Regional Educational Board, 1340 Spring Street, N.W.,  
Atlanta, GA 30309

Articles of further interest from CGS Proceedings:

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8. Law and The Graduate Dean  
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Ed. Joan S. Stark

Trustee Liability Insurance: A Final Report of The Association of Governing  
Board's Ad Hoc Committee

Educational Measurement & the Law. Proceedings of the 1977 ETS Invitational Conference. Educational Testing Service, Princeton, N.J., 1978.

In view of the convergence of measurement and the law, the conference focused on six related issues. Barbara Lerner explored the screening procedures of American professional and graduate schools. Melvin R. Novick discussed funding allocations under Title I, admissions policy and the Bakke case, federal guidelines for employment testing, and due process in the handling of suspected cheating cases. Wayne H. Holtzman reviewed the implications of several court cases. Norman Frederiksen offered some ideas for improvement in test use, and Michael Scriven suggested what measurement experts might learn about decision making from the law.

Employing Part-Time Faculty. Ed. David W. Leslie. Jossey-Bass, San Francisco, 1978.

This book analyzes the available data and experience on the employment of part-time faculty in American colleges and universities. The most pertinent chapter for graduate education is found in the Chapter III discussion of the law and part-time faculty. It concentrates on the status and security of part-time employees, equitable compensation, and the appropriate bargaining unit among faculty in unionized institutions.

In three separate contexts, chapters IV, V, and VI discuss the treatment of part-time faculty and make many practical suggestions for administrators confronted with the possibility of employing part-time faculty.

Blackburn's chapter, "Part-time Faculty and the Production of Knowledge," argues that the current and future academic marketplace does not supply the influx of new talent into universities that is needed for the creative solution of societal problems through the production of knowledge. The supply of Ph.D.'s is far outstripping the vacancies, resulting in a situation in which the odds are against a new but unplaced Ph.D. becoming productive. Two alternatives that Blackburn wants institutions to consider more carefully are: (1) filling every vacancy with two part-time (half-time) faculty and (2) experimenting more thoroughly with early retirement.

Governing Board and Administrator Liability. Robert M. Hendrickson and Ronald Scott Mangum. ERIC/Higher Education Research Report No. 9, American Association for Higher Education, Washington, D.C., 1977.

This is a quick handy reference which brings together important legal theories and relevant court decisions which have a bearing on the administrative and policy making decisions of administrators and boards. Written for the lay person, the

monograph covers topics such as the charitable and educational corporation, types of liability (contract, torts, criminal), employment and promotion of staff, constitutional rights, discrimination, and student-related liability. A final chapter discusses forms of protection including charitable immunity indemnification, insurance, and legal counsel. Finally, areas which should be reviewed for compliance documentation are listed.

Higher Education and the Law, 1980. Harry T. Edwards and Virginia Davis Nordin. Cumulative Supplement, Institute for Educational Management, Cambridge, MA, 1980

This booklet is a supplement to Higher Education and the Law, 1979, and contains edited reports of five Supreme Court cases as well as reports of important lower court cases and regulations. The topics covered in this supplement include Colleges and Universities as Legal Entities; Faculty Rights, Student Rights; and a section of Federal Regulation. Cases are indexed and citations to secondary sources are included.

"Implications of the Uniform Patent Legislation to Colleges and Universities," Arthur A. Smith, Jr., The Journal of College and University Law, (1981-82), pp. 82-96.

Smith explains the special features of the 1980 Patent and Trademark Law Amendments and their potential impact on university research. As he points out, the amendments seek to protect the public against the freezing of inventions, or the unreasonable use of inventions by patent-holders, while at the same time encouraging university-industry collaboration in developing and marketing the results of research. It simplifies the procedure for gaining patent rights from government-sponsored research, eliminating "extensively complicated and often frustrating processes of obtaining waivers and/or institutional patent agreements."

Smith's clear, precise delineation of the provisions of the amendments and their implications for university researchers makes this a useful article for university directors of research.

The Law and Higher Education. William A. Kaplin. Jossey-Bass, San Francisco, 1978.

This book provides a comprehensive treatment of the ever-expanding and quickly changing relationships between higher education and the law. As Kaplin notes, the core of the legal relationship between higher education institutions and their faculty is contract law, but the growing complexity of the relationship is evidenced by the pertinence of labor relations law, employment discrimination law, and (at least for public institutions) constitutional law, employment status, and regulations. Each of these legal areas is addressed.



Two sections address the standards, criteria, and procedures involved in faculty personnel decisions, concentrating on due process. The two landmark Supreme Court cases, *Board of Regents v. Roth* and *Perry v. Sindermann*, are reviewed extensively as well as a nonhigher education but related case, *Bishop v. Wood*.

Another section presents case law pertaining to faculty academic freedom, presenting the background and general principles and differentiating between academic freedom in the classroom, in institutional affairs, and in private life. The last section is devoted to staff reduction due to financial exigency. Various legal aspects of the six preceding sections pertain to this topic. The chapter closes with a topical annotated bibliography.

Kaplin has updated his 1978 work with *The Law and Higher Education 1980*. This updated edition can be used to supplement the earlier volume or used independently as a summary of major legal educational developments from the mid-1978 *Bakke* decision to early 1980 -- such developments as stricter affirmative action guidelines, implications for faculty collective bargaining arising from the *Yeshiva* case, and new guidelines and regulations on discrimination against the aged and the handicapped. The format follows that of the book's predecessor.

"New State Legislation on Informing Workers About Hazardous Substances in the Workplace -- Will it Impact on Teaching and Research?" Helen H. Madsen, *The Journal of College and University Law*, 9 (1982-83) 325-40.

Madsen answers her title question with a resounding "yes" early on in this article, and proceeds to discuss various types of state laws and how they may affect research and teaching. The discussion in the article will, as she says, provide research administrators and other university officials with "a basis for analyzing and commenting on proposed state legislation and federal regulation."

The danger in much current and proposed regulation is that it does not discriminate between university laboratories and industrial plants. Universities could find themselves subject to costly, irrelevant procedures as a by-blow to industrial regulations. Madsen cautions university people to analyze proposals that may not be intended for university regulation to be certain that they cannot be applied to university labs. At the same time, she advises that universities prepare protection procedures on their own as alternatives to state legislation or federal regulation.

Promoting Consumer Protection for Students. Ed. Joan S. Stark. Jossey-Bass, San Francisco, 1979.

This book presents an effective discussion of the several factors that have created the consumer protection movement in higher education. It also examines the difficult and controversial issues having to do with the implementation of such protective measures. The consumer movement, of course, seeks to achieve a balance between the rights of the institution and the rights of the students who contract for the services.

With the increasing competition for students among many colleges, emphasis upon student consumer protection can be expected to continue. Congress has taken specific actions to protect students through the Family Rights and Privacy Act of 1974 (The Buckley Amendment) and through various provisos of the Middle Income Student Assistance Act of 1978. The abuses most often addressed are misleading advertising; overly aggressive recruiting; lack of full disclosure of institutional policies and practices; inferior facilities, course offerings, and staff; false job placement promises; unsatisfactory refund policies; and a failure to live up to stated policies.

Trustee Liability Insurance: A Final Report of The Association of Governing Boards' Ad Hoc Committee, Association of Governing Boards, Washington, D.C., 1982.

The sixteen-page booklet addresses three questions: Is there anything available to protect trustees from the risks that accompany their position? Is there insurance liability policy written for boards of trustees of higher education organizations, and what aspects should trustees examine? What should trustees ask regarding their state indemnification statutes and protection? The discussion also includes cost of coverage and exclusions.

## Addresses of publishers and associations:

American Association for Higher Education, One Oupont Circle, N.W.,  
Washington, O.C. 20036

Association of Governing Boards, One Dupont Circle, N.W.,  
Washington, D.C. 20036

Educational Testing Service, Princeton, N.J. 08541

Jossey-Bass Publishers, Inc., 433 California Street,  
San Francisco, CA 94104

National Association of College and University Attorneys,  
One Oupont Circle, N.W., Washington, O.C. 20036

Articles of further interest from CGS Proceedings:

Bohm, Henry V., 10 (137-38)

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Carl V. Patton, et al

Academia in Transition: Mid-Career Change or Early Retirement. Carl V. Patton. Abt Books, Cambridge, MA., 1978.

During a time of little or no growth (and even decline) in the size of student population and budgets, American institutions of higher education are facing a serious dilemma of having little room for adding new young faculty so imperative to the vitality of higher education. Some institutions have encouraged faculty members to retire earlier, in order to open spaces for the new younger faculty. The recently passed federal legislation prohibiting forced retirement of faculty before the age of seventy will become effective in 1982. For many institutions this will mean allowing faculty to remain even longer than before.

Carl Patton begins his study of this situation with a review of why higher education institutions need early retirement programs. The steady-state condition and its implications for the future of institutions of higher learning are discussed.

One chapter focuses on a study of early retirees from four major universities having incentive programs. The author examines reasons given for choosing to retire early, the preparation that was necessary before retirement, satisfaction or dissatisfaction with the decision, and the effects of early retirement on the retiree's scholarship activities, economic position, and general well-being. His findings indicate that certain candidates seem to be better prospects than others for early retirement. The characteristics of this group are discussed.

Patton discusses the effects on faculty composition which would result if various retirement options were employed. Through a statistical analysis, he evaluates the impact which early retirement and mid-career change would have on faculties containing different age groups, and points out the changes in rates that would be necessary to alter the age composition of faculty.

A chapter devoted to legal questions, updated to include the most recent changes in the Age Discrimination in Employment law, is included covering funding, tax, and the requirements of the Employee Retirement Income Security Act (ERISA).

Patton discusses the advantages and disadvantages of the options reviewed earlier in the volume. He presents a number of policy implications for consideration. This book can help identify possible alternatives for encouraging faculty to retire early, prepare necessary cost calculations, focus on the proper control variables when the age composition of faculty is identified as a problem, and present a general view of the impact one can expect early retirement programs to have on faculty.

"Age and Mid-Career Crisis: An Empirical Study of Academics," L.V. Entekin and J.E. Everett, Journal of Vocational Behaviour, 19 (Aug. 1981), 84-97.

Entekin and Everett examine the so-called mid-life crisis, the career transition period of academics whom they surveyed at four Australian universities. The authors support a generalized career stage model and a specific career stage model of academic staff who are shown to be particularly susceptible to the mid-life crisis/career transition phenomenon.

Another Challenge: Age 70 Retirement in Higher Education. Hans H. Jenny, Peggy Heim, and Geoffrey C. Hughes. Teachers Insurance and Annuity Association/College Retirement Equities Fund, New York, N.Y., 1979.

This monograph discusses the implications of the 1978 amendments to the Age Discrimination in Employment Act (ADEA) for higher education. It makes the point that the amendments must be considered in conjunction with other federal legislation, the current economic climate, and certain demographic prospects before its real impact can be understood. One chapter describes the major regulations, and discusses some of the uncertainty surrounding the provisions. The core feature of the act is the prohibition against discrimination toward any individual between the ages of 40 and 70 for reasons of age in hiring, discharge, compensation, terms, conditions, or privileges of employment.

Another chapter discusses the broader implications of the amendments within higher education generally and for faculty in particular. The implications for faculty-student ratios and staffing patterns are explored. A section on the amendments from the viewpoint of individual faculty members provides a new perspective. Questions about early retirement, annuity programs, and financial planning are addressed.

Early retirement as a policy option is the subject of another chapter. The extent to which an aging faculty can be attributed to the effect of the amendments is discussed, followed by a section on incentive early retirement costs.

The last chapter emphasizes the importance of long-range personnel planning and makes the point that a voluntary, peer-group, retirement preparation program is the best way to gather information regarding employee retirement plans and needs. A finding from a survey of participating institutions showed a widespread lack of information on staff age structures and attrition patterns -- necessary ingredients for sound planning.

Career Changes Among Academics: Dimensions of Decision. William Toombs and Joyce Marlier. American Educational Research Association, Washington, D.C., 1981.

In an effort to establish patterns in decision-making about career changes, the authors interviewed one hundred thirty-four faculty members who left Pennsylvania State University, either to take other teaching jobs, to move to non-academic employment, or to retire. Although the authors' findings are obscured by heavy doses of jargon, it is clear that a general pattern is fairly difficult to identify; each individual had made his decision to move for independent reasons, and had done so without necessarily being heavily recruited.

People move from one academic position to another because they are offered more autonomy in their new position, more responsibility, and more recognition; not because they are being paid more. People move to non-academic positions because they feel the work there is ultimately more important than their work in the university.

The authors recommend the universities study their faculty movements and the reasons for them. Universities might try to develop policies to make change easier, which would in turn open a wide range of mid-career options for academics.

Faculty Career Development. Everett Carl Ladd, Jr., et al. Current Issues in Higher Education. American Association for Higher Education, 1979.

This monograph reviews faculty development and provides background on teaching and research activities of faculty. A series of charts is provided on the percent of time spent in each activity by type of institution according to a study conducted in 1977 on the American Professoriate. One article discusses faculty professional activity according to Levinson's stages of adult development. Unfortunately, the author only tracks faculty activity from the perspective of the traditional student and emerging professional. The career pattern of the nontraditional student or professional is not addressed. He suggests that knowledge of the various stages of adult development in which faculty may be might provide some important planning information for deans.

An article by Mathis suggests intervention strategies which might be useful in advising mid-career or older faculty as well as in setting an appropriate policy concerning faculty career management and institutional role. Lazarus and Tolpin's article discusses the plight of junior faculty. The final article reviews "growth contracts" as an alternative for deans in providing staff development opportunity for faculty.

Faculty Morale and Career Choice in the 1980's. David A. West. Available through ERIC, #ED 192703. 1981.

Mid-career change programs and alternatives for early retirement for college faculty are considered based on the current situation of declining or stable student enrollments, diminished faculty mobility, and increased numbers of tenured faculty. Mid-career change programs fall into two general categories: (1) retraining programs designed to enable faculty members to move from their current disciplines or specialties into other areas with newer and/or greater student demand; and (2) faculty internships and fellowships in private industry or government for a summer or year. Most early retirement programs are relatively unsuccessful, but one includes a reversible component enabling faculty members to try partial retirement with the option of reacquiring full-time faculty status if they determine that early retirement was premature. Three alternatives exist: (1) provision of direct front-end cash settlement before the age of mandatory retirement (i.e., to buy up a faculty member's contract with full or partial payment; (2) provision of early annuity programs, either individual or group-based and with or without partial employment; and (3) the reversible early retirement program. The effects of these options on faculty morale in times of retrenchment are considered.

Faculty Retraining. Final Report of the Faculty Retraining Project. State University of New York. Charles B. Neff and Thomas E. Nyquist. State University of New York, Albany, N.Y., 1979.

The authors describe the State University of New York Program on Faculty Retraining. Retraining is defined as preparation to move from one academic field to another or from one subfield of a discipline to another. It is distinguished from faculty development, involving the acquisition of new skills or knowledge applicable to one's ongoing responsibilities. Faculty retraining is viewed as an opportunity for faculty in areas of low and declining enrollments to retrain in related or sub-disciplines of growing or high enrollment. The Retraining Program has attracted

faculty ranging in age from 28 to 58 from various professional and degree levels.

The costs and funding procedures for the program are examined as well as application and acceptance processes. Evaluations from administrators of participating campuses, and from faculty who have completed retraining, indicate that the process has provided additional flexibility to colleges and universities confronted by the economics of retrenchment, declining enrollment, and high tenure ratios. It is suggested that retraining is most successful where clear guidelines are established at the outset, where it satisfies both the personal needs of faculty and institution, and where there is a good fit between the extent of career change and the length of the retraining program. Some sample questionnaires are included.

Freeing the "Stuck" and Aiding the Terminated: Expanding the Career Horizons of Tenured College Professors. George N. Schurr. Delaware University, Dover, Center for the Study of Values, 1980.

A project was undertaken to determine whether there are any nationally significant programs or projects dealing with the emerging problem of tenured faculty needing or wanting to reevaluate their careers and economic situations. Various approaches are described, with examples given. A section about on-campus approaches looks at the environment of individual campuses and the kinds of institutional policies and procedures used to address the issue. Interinstitutional programs are examined in terms of consortia and state systems, and internship and exchange programs. A section on extramural strategies, not officially sanctioned or planned, reviews consciousness-raising efforts, information dissemination by publications and career libraries, workshops, and emergency measures and planning programs for faculty already terminated. Among the recommendations made is a proposal for financial "annual prizes" to reward institutions for development of renewal programs. It is concluded that priorities for immediate action should include an emergency program for terminated faculty, a publication program of faculty career futures, and a program to develop and disseminate model institutional personnel policies. Appendices include a sample faculty interview form and policies, program outlines, and notes on faculty termination for Loyola University of Chicago, Southern Methodist University, Hampden-Sydney College (Virginia), and the California State University and Colleges.

Mid-Career Change and Early Retirement. Carl V. Patton. New Directions for Institutional Research, No. 20, Evaluating Faculty Performance and Vitality, 1978.

An NSF study suggests that important qualitative changes in the faculty may be obtained through increased attention to mid-career change and early retirement programs. Interest in career options, early retirement alternatives, evaluation criteria, mid-career change alternatives, internship, fellowship programs, and retraining programs are discussed.



"Mid-Career Change Options in Academe: Experience and Possibilities," David D. Palmer and Carl V. Patton. Journal of Higher Education, 52 (July 1981), 378-98.

Mid-career change programs have the potential to open faculty positions during these times of decline. Most current programs are intended to shift faculty to a different specialty or discipline, but data indicate that academics would be receptive to opportunities to move out of academe. Specific options are identified.

"New Opportunities for Faculty Members," W. Todd Furniss. Educational Record, 62 (Winter 1981), 8-15.

The barriers that prevent faculty from considering and testing career alternatives must be removed. The profession should provide a full program in career counseling, life planning, and preretirement assistance. The challenge is to redefine faculty careers for both the faculty interest and institutional welfare.

A Survey of Institutional Practices and an Assessment of Possible Options Relating to Voluntary Mid- and Late-Career Changes and Early Retirement for University and College Faculty. Final Report. Carl V. Patton, et al. ABT Associates, Inc., Cambridge, MA., 1977.

The project reported here studied increased-benefit early retirement programs and mid-career change programs in academic institutions, business, industry, and government. The search and analysis had two objectives: (1) to assemble information useful to colleges and universities; and (2) to assemble information helpful to individual academics. The study focused on programs within institutions that were specifically designed to increase early retirements or mid-career changes. Over 40 special-incentive early retirees were interviewed. It is concluded that institutions may find advantages to carrying out an increased-benefits early retirement plan; however, the effects of mid-career change programs are unclear.

Addresses of publishers and Associations.

American Association for Higher Education, One Dupont Circle, N.W.,  
Washington, D.C. 20036

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"Test Bias and the Elimination of Racism"

William E. Sedlacek

"Admission and Retention of Minority Students in Large Universities," William E. Sedlacek and Dennis W. Webster, Journal of College Student Personnel, 19 (Mar. 1978).

Sedlacek and Webster surveyed a number of private and public universities, asking about the special steps in their admission processes; this paper presents the results of their survey. The paper also reviews special admission processes used by the survey group and comments on the impact of special programs. Finally, Sedlacek presents a set of nontraditional, noncognitive predictors for success in higher education and suggests their use as a strategy to increase the number of students completing academic programs.

Admitting and Assisting Students After Bakke. Ed. Alexander W. Astin. Bruce Fuller, Kenneth C. Green. Jossey-Bass, San Francisco, 1978.

Focuses on alternative admissions procedures which center on assessing individual applicant disadvantage rather than ethnic or racial group membership; students' accounts of their concerns; need for increasing minority group participation at lower educational levels as means for eventually increasing minority group participation at graduate and professional levels; commitment to alleviate effects of past racial discrimination as basis for validation of preferential admissions programs; role of state-level public policy makers in dealing with underrepresentation after Bakke; defining and assessing disadvantages among minority and nonminority applicants; quantifying advantages; racially neutral ways of measuring applicants' aptitude; and roles and options for continuing the effort to increase minority participation.

An Analysis of Hispanic Doctoral Recipients From U.S. Universities, 1900-1973, With Special Emphasis on Puerto Rican Doctorates. Vol. 2, Number 2. Abdin Noboa-Rios. Metas-Aspira of America, Inc., New York, N.Y., 1981.

As the title says, this descriptive study surveys Hispanic doctorate recipients from 1900-1973 and compares achievement by different Hispanic groups in the United States. Family background characteristics, academic characteristics, and socioeconomic characteristics are reviewed. Although this study might be more valuable to sociological researchers, it makes some interesting observations about Hispanic graduate students which should help graduate school counselors in particular.

The Bakke Decision: Implications for Higher Education Admissions. Wayne McCormack. American Council on Education, Washington, D. C., 1978.

An analysis of the Bakke Decision and the several opinions by the Supreme Court Justices. This short paper seeks to assist educators and educational policymakers in understanding the Supreme Court's decision. It analyzes the various objectives to be served by race and ethnic group-conscious admission programs and examines several models of admission procedures and criteria that might be used to serve these objectives.

The Bakke Decision: Retrospect and Prospect. Ed. Charles M. Holloway. College Entrance Examination Board. New York, N.Y. 1978.

This is a summary report on six seminars held by the College Board at colleges across the country during July and August 1978, immediately after the Bakke decision. The report contains several background papers written from legal, educational, and admissions practices standpoints prepared prior to the conferences as well as the statement that summarized the legal, educational/social, and admissions problems the decision caused.

The report quotes the relevant sections of both the case and the Constitution as background prior to a careful discussion of the shades of disagreement among lawyers as they interpreted the intent and implications of the Supreme Court's decision. Perhaps the most valuable portion of this document, beyond the nuances pertaining to the issues, is the presentation of the details of the Harvard admissions program and the alternatives to it developed by a team of admissions officers.

The combination of well-presented issues and the practical implications for diverse institutions makes this essential post-Bakke background literature.

Black Students in Higher Education: Conditions and Experiences in the 1970s. Gail E. Thomas. Greenwood Press, Westport, CT., 1981.

Compilation of twenty-eight essays representing findings of lawyers, doctors, research scientists, and college professors and administrators -- most of whom are minorities -- on the special problems of black higher education in their areas of expertise. Individual articles treat aspirations and achievement of black students in the 1970s; their successes and failures in medicine, law, engineering; the implications of the Bakke decision and other court cases; the importance of testing to black students' careers; programs and strategies for increasing black access and retention; and broad level structural policies affecting the future of blacks in higher education.

College Achievement Through Self-Help. A Planning and Guidance Manual for Minority Students. Luis Nieves. Educational Testing Service, Princeton, N.J., 1978.

In this manual for minority students in higher education, advice is provided on the following topics: methods of self personality assessment; suggestions for budgeting study time in an individual schedule; relaxation techniques to combat anxiety; methods of self-management in cases of mild depression; and techniques for making decisions about future careers and graduate study. Numerous scales, checklists and self-evaluation quizzes accompany each topic. A directory of information sources about graduate study and financial aid is included.

The Conditions of Education For Hispanic Americans. George H. Brown, Nan L. Rosen, Susan T. Hill, Michael A. Olivas. National Center for Education Statistics, Washington, D.C., 1980.

This report, generated as a special initiative by the National Center for Education Statistics "to develop accurate data about the characteristics, strengths and needs of Hispanic Americans," uses existing data sources concerning the educational participation and achievement of the group. Information is also provided about the sociological, demographic and employment characteristics of Hispanic Americans and how these relate to their educational attainment. Chapter I provides an overview of Hispanic Americans including size of population, age, geographic distribution, and school enrollment status. It addresses the problem of defining Hispanics and Hispanic subgroups. The following chapters address elementary and secondary topics; postsecondary education, including enrollment data, degrees awarded and student characteristics; level of education and employment; unemployment rates; post high school experiences; and income levels. Throughout the report the reference group is white and nonhispanic.

Engineering & Technology Degrees. Engineering Manpower Commission. Engineers Joint Council, New York, N.Y., 1979.

Part II of this report is a compilation of data which shows the engineering and technology degrees received by Blacks, Hispanics, Asian/Pacific and American Indian peoples and by Women and Foreign Nationals at all levels of the higher education system. The two hundred and eighty-eight schools represented contribute data from twenty-one curricula categories. Part I of the report presents summary data by school, curriculum and degree level, and Part III gives more detailed information by curricula grouped into twenty-nine headings. Codes and acronyms are defined at the beginning.

Harvard Encyclopedia of American Ethnic Groups. Ed. Stephan Thernstrom. Harvard University Press, Cambridge, MA., 1980.

Although somewhat controversial in its interpretation of ethnic dynamics, this sourcebook provides an extensive documentary of every ethnic group which has immigrated to the United States. The section on American Indians discusses each tribal group separately. Although not a uniform checklist, the entries include origins, migration, arrival, settlement, economic life, social structure, social organization, family and kinship, behavior and personal characteristics, culture, religion, education, politics, group maintenance, intergroup relations, individual ethnic commitment and a limited bibliography of important and readily available reference works on the population. Dispersed throughout the alphabetical listing are thematic essays relevant to ethnic concerns.

A Losing Battle: The Decline in Black Participation in graduate and professional Education. National Advisory Committee on Black Higher Education and Black Colleges and Universities, Washington, D.C., 1980.

Details the decline in the numbers of Black Americans in graduate and professional schools; provides a statistical profile of the deteriorating involvement of black students at graduate and professional levels, sets forth the reasons for the numerical and proportional declines, and recommends strategies to remedy this problem and to increase federal and institutional commitments to equity in advanced education.

Mainstreaming Outsiders: The Production of Black Professionals. James E. Blackwell. Bayside, N.Y.; General Hall, Bayside, N.Y., 1981.

This is a study of the successes and failures of collective efforts employed to assist Black Americans to enter the mainstream. It is a trend analysis of access, enrollment, and graduation of Black students. It examines factors believed to influence access, enrollment, and graduation. It is also a compilation of data which renders comparisons across disciplines or fields of study. The professional fields of study selected for analysis include medicine, dentistry, optometry, pharmacy, veterinary medicine, engineering and architecture, law, and social work. Special attention is also given to the overall analysis of the entry and production of doctorate degrees among Black Americans, especially in the arts and humanities, the Social Sciences, and the Physical Sciences. Other salient issues covered are the role of financial aid in mainstreaming; relationship between recruitment programs, special admissions programs, and traditional admissions criteria in admissions decisions; importance of retention programs for graduation rates; differences between institutions in states under litigation to desegregate and other states, and between public and private institutions; correlation between access and presence and/or size of black population; effect of Bakke decision on affirmative action; and implications of these findings for social policy.

Minorities in American Higher Education. Alexander W. Astin. Jossey-Bass, San Francisco, 1982.

In this in-depth analysis of the educational status of Blacks, Chicanos, Puerto Ricans and American Indians, the author examines national statistics, longitudinal studies, and surveys of educators and students to find out how much progress minorities have actually made, what obstacles still stand in their way, and how these obstacles can be overcome. He discusses enrollments, fields of study, attrition rates, degrees attained, personal backgrounds and more, and points out critical factors in educational attainment. Over sixty recommendations are presented from the Commission on the Higher Education of Minorities on ways of increasing the numbers of minority students who enter and complete undergraduate and advanced programs. He also offers practical recommendations for improving minority education in all institutions.



The Minority College Student Experience: A Case for the Use of Self-Control Systems. OME Monograph Number One. Luis Nieves. Educational Testing Service, Princeton, N.J., 1978.

Through a review of the current literature, the problems of minority college students and a self-help alternative to traditional counseling of such students are examined in this document. The discussion includes an analysis of cognitive and noncognitive factors that influence academic performance, adjustment, and continuation into graduate education. The literature indicates that minority students have more problems mastering the skills and characteristics needed for academic survival and achievement than other students. In a discussion of the relationship between minority student characteristics, their psychological and academic problems, and their academic behavior, it is suggested that self control methodology could be more effective in modifying academic behavior than traditional counseling techniques and that the "biblioguidance" of self management systems is as effective as counselor presented formats. It is stated that although research on self control and self help techniques is relatively new and its effectiveness with minority students is unproven, evidence indicates that its use could prevent counseling problems formerly encountered.

"The Minority Pipeline: Minorities at Different Educational Transition Points," James W. Henson and Alexander W. Astin. New Directions for Higher Education, 6 (Mar. 1978).

Increasing the participation of minority groups at lower educational levels appears to offer substantially greater potential for eventually increasing the representation of minorities in graduate and professional schools than do changes in graduate and professional school admissions procedures. Data from a Cooperative Institutional Research Program (CIRP) survey are reported.

"Multicultural Realty: The Pain of Growth," Martha Romero. The Personnel and Guidance Journal, 59 (June 1981).

This article discusses the transitions made by minority students as they become bicultural individuals. Often the process is begun when they launch this post-secondary education careers. The article is intended to give counselors and advisors a useful model for understanding the emotional conflict which students experience as they make the transition.

"The New Professionals," Lee Daniels, Change, 11 (Oct. 1979).

Excerpts from interviews with Black students and graduates from Harvard Law and Medical Schools reveal the concern of these minority professionals as representatives of the Black community. Their experiences in graduate school and later in their professions are described.

Participation of Women and Minorities on U.S. Medical School Faculties. H. Paul Jolly and Elizabeth J. Higgins. Association of American Medical Colleges, Washington, D.C., 1979.

This monograph provides current data of U.S. medical school staffing by ethnic description and by sex. Changes over a three-year period are compared. Data source used is the Faculty Roster System maintained by A.A.M.C.

Post-Bakke Policy Conferences of Administrators of High-Demand Academic Programs. Reports of Eleven Conferences Held September 1978-February 1979. American Council on Education, Washington, D.C., May 1979.

An introductory report by Todd Furniss ("Professional Education After Bakke") discusses the rationale for the conferences represented here and examines some of the implications for post-Bakke policy. The conferences were held between September 1978 and February 1979 throughout the country and emphasized affirmative action in graduate programs in law, education, business, veterinary medicine, dentistry, and medicine. One conference was held on undergraduate programs. Papers included are "Bakke and Graduate Schools of Business;" "Bakke: The Impact on Fellowships;" "What Can and Is to Be Done: After Bakke;" "The Bakke Decision: The Legal Ramifications;" and "The Black Exclusion of Veterinary Medicine."

"Preliminary Report, Fall, 1981 Horace H. Rackham School of Graduate Studies," Donald R. Deskins, Jr. Rackham Reports, 7 (Fall 1981).

Of 1,658 institutions awarding degrees, 21% (362) were selected for this study. 92 of the 362 are minority institutions; 3 Hispanic; 1 Asian; 88 Black.

This study reports on the schools most likely to be feeder schools to graduate education. It identifies private/public, urban/rural combinations which tend to be most successful in graduating minority students.

Representation of Minorities in Higher Education in the West. Report by Western Interstate Commission on Higher Education, Boulder, CO., 1980.

This report is intended to provide an accurate picture of the representation of racial and ethnic minorities in institutions of higher education in the western states. Information is given on minority enrollment patterns and degrees awarded in private and public institutions and reflects undergraduate, graduate and first professional program data.

Special Programs for Female and Minority Graduate Students. Frank J. Atelsek and Irene L. Gomborg. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1978.

This report describes only "extraordinary programmatic efforts" directed by institutions to women and minorities. Respondents cited fear of stigmatizing any one class of students, and uncertainty generated by the Bakke case as reason for not designing graduate programs especially for a special group of students. Yet, of those responding, 46% of institutions awarding a postmaster degree had at least one formal program designed for women or minority graduate students. Special recruitment efforts were made by 39%; 35% had special financial aid programs; and 24% of the responding institutions gave special academic assistance. Schools of law and medicine were the most active and public institutions were more active than private.

"Stop the Revolving Door," Anne S. Pruitt, AGB Reports, 21 (Mar./Apr. 1979).

Since disadvantaged students need more than admission to succeed in college, especially in graduate and professional schools, a comprehensive developmental program is needed, with a full system of student support. Suggestions for institutional and state support, and a decision-making structure and an advisory structure are recommended.

"Test Bias and the Elimination of Racism," William E. Sedlacek, Journal of College Student Personnel, 18 (No. 1, 1979).

Three types of test bias are discussed: content, atmosphere, and use. A six-stage model to eliminate racism and sexism in testing is described. Sedlacek defines test bias as "negative test outcomes ... because that person is identified with a certain group." He suggests that the question is not, "Is the test biased?" but "Is the society biased?" since test items will reflect societal and cultural norms.

## Addresses of Publishers and Associations:

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College Entrance Examinations Board, 888 Seventh Avenue,  
New York, N.Y. 10106

Educational Testing Service, Princeton, N.J. 08540

Greenwood Press, 88 Post Road, W., Westport, CT 06881

Jossey-Bass, Inc., 615 Montgomery Street, San Francisco, CA 94111

National Center for Educational Statistics, U.S. Department of  
Education, Washington, D.C. 20202

Western Interstate Commission on Higher Education, P.O. Drawer P,  
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Responses to the Revolution in the Urban Academic Environment in Higher Education: A Case Study Report -- George Mason University

William S. Wills, et al

"Adult Development and Adult Learning Styles: The Message for Nontraditional Graduate Programs," Jill Mattuck Tarule and Rita Weathersby, Alternative Higher Education: The Journal of Nontraditional Studies (Fall 1979), 11-23.

Both the content and process of graduate education promote adult development. Graduate programs, particularly nontraditional programs, can both address the growing adult and uphold relevant standards of intellectual excellence and professional expertise. Life phases, developmental stages, and learning styles are three domains that are described.

"Adult Education Graduate Students: A Profile." Robert Meisner, et al, in Lifelong Learning: The Adult Years, 2 (Mar. 1979), 18-19.

Meisner presents conclusions from a study conducted by Kansas State University to provide a demographic profile of graduate students in adult and continuing education graduate programs, using data collected from a random survey. Notes, observations, and questions based upon the data about these students and their program choices are included.

Adult Part-Time Students and the C.I.C. Universities. A Study of Credit and Degree Earning Opportunities for Adults at Eleven Midwestern Universities. Robert F. Ray, Iowa University, Iowa City, Division of Continuing Education, 1977.

As a sequel to a 1971-72 study, this report for 1975-76 provides an updated inventory of the programs and policies of the Committee on Institutional Cooperation (CIC) universities through which adult part-time students may earn credit and bachelor's or master's degrees, notes significant changes since the first report, and offers suggestions for future development. Topics discussed include residency requirements; fee structure; student classifications and degree credit; counseling services; special clientele programs serving prisoners, the elderly, business, labor and engineers, women, the disadvantaged and handicapped, and community college personnel; credit by examination and advanced placement; credit for military service courses, programs given by noncollegiate organizations, or experiential learning; external and nontraditional degree programs; consortium participation; off-campus, extension, Saturday, or evening classes; independent study including correspondence courses; accelerated courses; auto-tutorial or computer-assisted instruction for self-paced programmed learning; and use of media such as radio, television, audio and video cassettes, and electronic blackboard and telephone.

"Advanced Studies: A Postbaccalaureate Degree Model for Lifelong Learners," David G. Ruffer and Francis X. Brady. Liberal Education, 64 (Oct. 1978), 369-72.

A model for an alternative degree program for postbaccalaureate students is presented. The program is designed for lifelong learners for whom traditional graduate study is not appropriate. It is not directed toward disciplines, but toward the learner's profession and his personal needs for advancement within his profession.

Appalachian Professional Development Center. Final Report. West Virginia College of Graduate Studies, Institute, 1978.

Through support from the Fund for the Improvement of Postsecondary Education, a model for providing graduate programs to full-time employed adults residing in remote locations of southern West Virginia was designed by the West Virginia College of Graduate Studies, a college that does not have a campus. The essence of the delivery model was to establish resource centers in remote locations that would enable students to complete coursework through use of mediated and printed self-instructional materials. Courses were constructed based on a systems model for instructional development. Workshops and seminars and demonstrations of the benefits of the model were conducted to gain full college commitment to the project. Six courses were developed and implemented, and a total of 597 students participated in the courses over two years. Attitudes toward the courses were surveyed, and approximately 80 percent of students indicated a positive attitude toward the course methods. Favorable results were also obtained from a cost analysis of the project. The effect of the program on the college is discussed. Course descriptions, course enrollment data, a sample attitude assessment instrument and results of course evaluation, sample formative evaluation instruments, and cost analysis instruments are appended.

Developing Experiential Learning Programs for Professional Education, New Directions for Experiential Learning Series. Eugene T. Byrne and Douglas E. Wolfe (Guest Editors). Jossey-Bass, Inc., San Francisco., 1980.

This sourcebook is intended to provide help to those in professional schools who want to develop whole programs for experiential learning. In the first chapter a conceptual model for development of professional competence in applied behavior sciences is provided. A knowledge base coupled with analytical skills is required for competence and a developing program must consider the whole person. The next three chapters describe three specific graduate models; one in public administration, which separates the process from the content of learning; one in law, which builds development of "lawyering skills" into the curriculum; and one in business, which uses experiential learning to acquire fundamental concepts in the field. The next four chapters further define issues of program development in experiential learning. Design, conduct, and evaluation of programs are considered from several perspectives. Role behavior, experiential learning systems set up as a reaction to traditional learning modes, and development of student teams to facilitate learning are some of the perspectives discussed. A concluding chapter identifies implications for change in professional education.

Enhancing Proficiencies of Continuing Educators. Alan Knox. New Directions in Continuing Education Series, No. 1. Jossey-Bass, San Francisco, 1979.

Alan Knox asserts that all categories of practitioners need three kinds of proficiencies -- a perspective on the field, an understanding of adult development, and certain personal commitments. Drawing on a broad range of literature from research and practice, Knox comments on specific proficiencies desirable in administrators, teachers and counselors, and policy-makers.

Expanding the Missions of Graduate and Professional Education. Ed. Frederic Jacobs and Richard J. Allen, New Directions for Experiential Learning, C.A.E.L. Columbia, MD, 1982.

This volume is composed of eight papers on various aspects of experiential learning as it relates to graduate and professional study. Chapter one is an assessment of graduate education; it urges a re-examination of the methods of delivery of courses. Chapter two examines experiential learning programs now in practice. Other chapters assess the graduate tradition and experiential learning; new facts, assumptions, and approaches to graduate education; and the outlook for experiential learning and graduate study.

"Graduate Credit for Prematriculation Experiences," Norman Somers, Alternative Higher Education: The Journal of Nontraditional Studies, 4 (Fall 1979), 32-40.

Although undergraduates often earn academic credit for prior learning, graduate students are rarely afforded that opportunity, with Central Michigan University and the University of Northern Colorado as the only two prominent institutions offering such credit. Both the American Council on Education and the Council for the Advancement of Experiential Learning support experiential learning in the graduate sector.

The Graying of the Campus. Ruth Weinstock. Educational Facilities Laboratory, New York, 1978.

This book deals with how colleges and universities can accommodate older students, those roughly age 55 and older.

Parts 1 and 2 describe "a new partnership" and "the new partner": the nature of the movement of older and elderly people back to college, statistics on the aging population and their enrollment in college, "facts and fiction" about the intellectual capacities of older people, and the diversity in the older population.

Part 3 considers issues related to design of effective instructional programs; the necessary range of offerings, temporal scheduling, special types of content, format questions, planning with students, preparing teachers, and counseling and other support services.



Part 4 discusses financing issues, including faculty, facilities, and administrative and support services costs, together with notes on various sources of external financing.

The book concludes with a compilation of annotated references on (1) the education of older and elderly people and (2) organizations interested in the education of older people.

"Integrating Adult Development Theory With Higher Education Practice," Arthur W. Chickering and L. Lee Knefelkamp, Current Issues in Higher Education #5, American Association for Higher Education, Washington, D.C., 1980.

This monograph contains two articles on adult development theory as it relates to student development. Chickering proposes that we use the research and theory of adult development as the basis from which to make changes in our institutions. He suggests that organizational and personal professional changes can be synergistically linked and that a new framework will thus emerge from which to make curricular and program changes as well as changes in our organizational systems. Knefelkamp further suggests that the language of adult development can be the medium through which we can teach ourselves to see, hear and understand our students from a wider perspective than that offered by our subject matter and our generation.

1979 Directory of Resources for the Education of Adults. Ed. J. Mevin Robbins. ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, OH, 1979.

This publication represents an extremely comprehensive and up-to-date guide to information resources on adult and lifelong learning. The Directory is composed of twenty-two chapters organized into four parts.

Part I includes an introduction to resources for the education of adults together with a conceptual overview of the field of adult education.

Part II consists of ten short guides to resources. Topic areas include: program management, funding, instruction and learning, materials selection, professional development, problem solving, handicapped individuals, non-English-speaking learners, older learners, and self-planned learning.

Part III contains listings of: relevant national advisory councils; some four hundred nongovernmental organizations with interests in adult learning; eighty-eight university-based degree programs for educators of adults; a host of federal and state agencies and offices; information and resource centers (including ERIC, state education department information officers, community education centers, worker education organizations, and organizations for minority groups and other special populations); research and development centers; special purpose organizations; some one hundred fifty publishers; approximately one hundred thirty relevant periodicals, and roughly one hundred seventy-five key books and other publications.

Part IV consists of subject and general indexes.

Responses to the Revolution in the Urban Academic Environment in Higher Education: A Case Study Report -- George Mason University. William S. Wills, et al. Paper presented at the Annual Conference on Urban Education, 1977. ERIC No. ED151471.

In the past five years the university has begun to direct its outlook to serve its student body which has become both culturally and intellectually diverse. The university minority population includes a relatively small rural black population, and a somewhat larger urban black population. There are also a significant number of foreign minority students. At the graduate level, George Mason has responded to the needs of the region by introducing master's programs that cater to the needs of graduate students who work full time while studying part time. Graduate programs are offered primarily during the evening hours. In addition, residency requirements, thesis requirements, and full-time study requirements are flexible. To accommodate those students who are pursuing full-time graduate study, there are graduate courses offered during the day. The most important task facing the university is that of maintaining both flexibility and integrity.

## Addresses of publishers and associations:

American Association for Higher Education, One Dupont  
Circle, N.W., Washington, D.C. 20036

Council for the Advancement of Experiential Learning,  
Lakefront North, Suite 300, Columbia, MD 21044

ERIC Clearinghouse on Adult, Career, and Vocational  
Education, Columbus, OH

Jossey-Bass, Inc., 433 California Street, San Francisco,  
CA 94111

Useful articles from CGS Proceedings:

Houle, Cyril O., 14 (146-53)

Rupp, Richard H., 17 (73-80)

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Francis Keppel, Carl Kaysen, and Richard M. Cyert

"Strategies Toward Cooperation"

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The Three "K's" of the Eighties: Reduction, Reallocation and Retrenchment

Kenneth P. Mortimer and Michael L. Tierney

Zero-Base Budgeting in Colleges and Universities

L. James Harvey

1981-1982 Administrative Compensation Survey. Jan P. Miller, Stephen S. Miller, and U.E. Landaver. College and University Personnel Association, Washington, D.C., 1982.

The fifth annual survey conducted by CUPA covers 94 administrative positions and adds a table on years of service to those produced in earlier reports. After a discussion of general characteristics and the survey methodology the report lists tables of positions found within different systems of colleges and universities. Regional summaries are also given. The general purpose of the report is to provide information to decision makers evaluating compensation for administrative staff and for those planning budgets.

Challenges of Retrenchment. James R. Mingle and Associates. Jossey-Bass Publishers, San Francisco, 1981.

The need to study institutions and their response to retrenchment and declining resources prompted Southern Regional Education Board to undertake the project which preceded the compilation of this book.

After a general discussion of the challenges to policy makers responsible for planning in a time of decline, specific chapters discuss the following problems: warning signals within institutions; evaluation and discontinuance of programs; negotiating mergers among institutions; faculty issues, including rights and legal restraints on cutbacks; enrollment and funding relationships; and survival problems of the private institutions. Case studies and a substantial bibliography are provided.

The Costs and Benefits of Graduate Education: Estimation of Graduate Degree Program Costs. Joseph L. McCarthy and William D. Garrison. Council of Graduate Schools, Washington, D.C., 1978.

This monograph provides a detailed rationale for the calculation of the costs of graduate education per student per year per department or field. Degree costs are also considered. Interdepartmental and/or interdisciplinary program costs are given special attention to test the methodology against areas in which no departmental budgets exist to be allocated. Distinctions are also made between master's or doctor's degree costs.

Explanations are given for the apportionment of institutional support costs in such areas as library, student services, plant operation and maintenance, and administration. Graduate student appointment costs and research program costs are also considered, although sponsored research costs are not counted as part of the degree program costs.

Criteria for Planning the University Learning Resources Center. Irving R. Merrill and Harold A. Drob. Association for Educational Communications and Technology, Washington, D.C., 1977.

A study conducted in 1970 for the University of California to identify essential criteria for planning university learning resource centers, this book cites the advantages of learning resource centers in higher education, drawing evidence from published studies and reports. It deals with administrative organization and the recommended status of learning resource centers in universities. Criteria for staff and space requirements are provided with specific suggestions on how they apply in actual university situations. Planning and administering the budget of the university learning resource center are reviewed, along with ways and means of encouraging faculty involvement in such planning. Special provisions and pros and cons of "recharging" (i.e., of charging departmental budgets for services rendered, rather than of paying for them from the central learning resource center budget) also are reviewed. The study concludes that: the director of learning resources should report to the chief academic officer; he or she should be a professional member of the faculty, qualified according to high standards of academic preparation and experience; at least one consultant in instructional development should be employed full time on the learning resources center staff; the number of staff and of square feet devoted to the learning resource center should be determined through use of procedures and standards developed in the study; and the budget of the learning resources center should be developed according to a system.

Economic Impacts of Higher Education in South Dakota. William H. Bergman. Business Research Bureau, University of South Dakota, 1981.

This report gives a detailed local impact statement for six state universities and colleges. In general, the areas examined are: institution-related local business volume; local business expenditure; value of local business property committed to institution-related business; expansion of local banks' credit base resulting from institution-related deposits; institution-related revenues to local government; operating costs of local services allocable to institution-related influences; real estate taxes foregone because of institution's tax-exempt status; number of local jobs attributable to institution; and the personal income of local residents attributable to the institutions.

Detailed tables show, among other things, the direct impact of research activity on the local economy.

Expenditures for Scientific Research Equipment at Ph.D.-Granting Institutions, FY 1978. Frank J. Atelsek and Irene L. Gomberg. Higher Education Panel Reports, American Council on Education, Washington, D.C., 1980.

This report summarizes level of expenditures for scientific research equipment and the federal contribution to those expenditures. In FY 78, about \$280 million was expended by institutions: the federal government financed 65% (59% at public institutions and 75% at private institutions).

Faculty Response to Retrenchment. AAHE-ERIC/Higher Education Research Currents.  
Margot Sanders Eddy. American Association for Higher Education, Washington, D.C.,  
1981.

The innovative actions that faculty, and institutions on behalf of faculty, have taken to adjust to retrenchment and the changing academic profession are considered. It is suggested that faculty have three kinds of employment options to present conditions such as the scarcity of tenure-track positions and the failure of salaries to keep pace with rising prices. The options are remaining on campus, engaging in supplemental work on and off the campus, or leaving academe. Programs to retrain faculty in low and declining enrollment areas to teach in related disciplines or subdisciplines with growing or high enrollment are increasingly common. Some faculty are shifting to college administration, research, or support services. Overload teaching and consultation are sources of faculty supplemental income and may result in retraining and additional job contracts. Sabbatical leaves may be another option for faculty that permits employment for professional development or retraining or simply allows the individual time for career assessment.

Higher Education and the Economy: A Survey of the Impacts on Pennsylvania's Economy of Its Colleges and Universities. The Pennsylvania Economy League, Inc., Pennsylvania State Board of Education, 1981.

This is an extremely valuable study that examines the economic impact of Pennsylvania's colleges and universities on local communities and the state. Surveys give dollar figures for the impact of the institutions as consumers, as employers, as investors, as property owners, and in other areas. (With some extrapolation, it is possible to find an approximate dollar value of the research effort in the state.)

Not surprisingly, the study concludes that institutions of higher education have had a positive effect on the economy. Any deterioration of support for higher education will result in both short term and long term losses for the state's economy.

Higher Education Financing Policies: States/Institutions and Their Interaction.  
Larry L. Leslie and James Hyatt. Center for the Study of Higher Education,  
University of Arizona, Tucson, 1981.

This statement of the changing process for financing higher education is a result of the 1980 finance conference at the University of Arizona. Changing demography and its impact on higher education is provided first. Next, a state perspective and the perspective of a chief institutional finance officer are presented. Research studies on indexing to the cost of education as an impicator for state financing and a study on student aid policies for the 1980's are reported. Special issues which receive attention include budgeting for enrollment decline, and statements about the Ohio, Indiana and Virginia systems; and fiscal crisis management using California, Wisconsin and the University of Washington as discussion vehicles. Information needs for budgetary analysis uses the University of Houston experience.

Other topics include capital budgeting, incentive budgeting, compensation, and space utilization. Quality issues are discussed generally and an attempt is made to define quality dimensions in instruction, research and public service, academic support, student services and institutional support. Also explored are special problems of two-year community colleges. The concluding section reports on institutional responses to financial stress. A study of the California system is used as the discussion model. Finally, a chapter about reducing conflict between state boards and institutions points out that institutions, as organizational systems, are viewed differently depending on the role or function of the perceiver.

Higher Education for the 1980's: Challenges and Responses. Report of the Second Hiroshima International Seminar on Higher Education, Research Institute for Higher Education, Hiroshima University, Hiroshima City, Japan, 1980.

This report contains the papers given at the International Seminar for Higher Education convened by Hiroshima University. Topics include social changes which might result in the development of a new system of higher education: and policy development for reform, innovation and experimentation. The education systems of Korea, Japan, and West Germany are described. Issues in higher education in Western European and third world countries are addressed. The concluding chapter summarizes statements about faculty and student characteristics which foster or impede change, and lists nine innovations needed in higher education in the 80's. The role of government is perceived as improving quality while restricting freedom. The critical function of the university, that of "speaking truth to power," is in danger of being extinguished for political and economic expediency. Cultural diversity creates tension which can be a positive force for global creativity. One speaker, however, warned the participants that the dominance of Western cultures has impeded rather than facilitated development because academics who go to developing countries go there with the purpose of furthering their own academic stature in their own societies, and remain insensitive to the tensions and negativism which they engender.

"Minicomputer Acquisition Policy: a Process and a Conclusion," Gordon L. Nordby, Educom Bulletin (Summer 1978), 2-8.

Although the basic mode of providing computing on campus is through a centralized service organization, alternative sources of computing are becoming more attractive.

Campuses are experiencing the proliferation of computer acquisitions of all kinds for a wide range of purposes. This article argues that the institution needs a policy to coordinate such purchases with the best interests of the campus as a whole. It emphasizes the importance of centralized planning, management, and control, even when hardware, software, and personnel resources are decentralized.

Using the example of the University of Michigan, the author presents a set of policy guidelines that conform to these requirements. The policy is expressed in terms of eleven questions that need to be asked about recommendations to acquire new computers for a special purpose.



Needs Assessment in Planning Graduate Degree Programs. Linda K. Bock. New Directions for Continuing Education, No. 7, (1980), 37-42.

Describes a needs assessment strategy for assessing client interest in a graduate liberal arts degree for adults. It is recommended that, in planning a new off-campus graduate degree program for adults, attention should be given to assessing needs both externally and internally.

Organizational Responses to Scarcity: Exploring the Obstacles to Innovative Approaches to Retrenchment in Education. David A. Whetten. National Center for Educational Management Systems, Boulder, CO., 1981.

Whetten argues that academic administrators have confused efficiency with effectiveness. At a time when resources are declining, administrators typically attempt to make their institutions run more efficiently: they cut back on staff, eliminate programs with few students, eliminate new ("innovative") programs such as Black studies, and stop development of new programs.

Although certain efficiencies can be achieved, Whetten says that effectiveness must also be considered. Increased efficiency does not necessarily imply increased effectiveness. A time of scarcity, he says, is a time when innovation in program offerings and administration must be attempted.

Strategic Policy Planning: A Guide for College and University Administrators. Robert G. Cope. Ireland Education Corporation, Littleton, CO., 1978.

This volume explains strategic policy planning and provides practical guidelines to senior administrators. Cope sees strategic planning as opportunity analysis, a way of thinking we all use and understand intuitively. The content of the volume is intended to help identify undertakings that require long lead times, to assist institutions and individuals to take the initiative rather than to respond to change, to inspire personal effort as individuals see the value of setting and achieving viable goals, and to stimulate imagination. The author sees the context of the American system of higher education as one of a surprising diversity of postsecondary institutions with confused identities, without leadership yet competing in a market economy while using stop-gap management techniques.

A ten-step strategic planning process is suggested: (1) reexamine the statement of the institution's purpose; (2) engage in futures search, list key assumptions; (3) describe the institution and its service areas; (4) identify major strengths; (5) identify major weaknesses; (6) again identify assumptions; (7) make a new statement about mission and identify goals; (8) determine guiding objectives; (9) make additional modifications of mission, goals, and objectives; and (10) synthesize strategic alternatives.

Although the process may seem overly structured, plans that do not develop from a rigorous process, or something similar, are not likely to have a comprehensive frame of reference to serve both as a starting point and as a continuing guide. One must recognize that there is going to be resistance to planning generally and to generating the data needed for planning. Ideally, the process of planning should be directed by an individual who is thoroughly familiar with the planning techniques and who has no direct personal interest in their outcome.

"Strategies for Retrenchment: National, State, Institutional," Francis Keppel, Carl Kaysen, and Richard M. Cyert, Current Issues in Higher Education No. 6, American Association for Higher Education, 1980.

These three essays discuss strategies for retrenchment which could be used by federal and state governments and by the institutions themselves. The first paper suggesting a national assessment procedure to evaluate institutions by sampling student test scores draws negative reactions from several critics. Kaysen presents a series of recommendations of the Sloan Commission on Government & Higher Education on the role of the State in insuring quality in higher education and covers subjects ranging from the composition of higher education boards to faculty collective bargaining to program reviews and minimum standards of academic conduct. The final article discusses management considerations to achieve static equilibrium -- i.e. lack of growth.

"Strategies Toward Cooperation," Donald J. Johnson, Alternative Higher Education: The Journal of Nontraditional Studies (Fall 1979), 41-47.

The Quad-Cities Graduate Study Center in Rock Island, Illinois, a voluntary, publicly funded, academic consortium, is described. It was incorporated as an experimental project to determine if pooling institutional resources were academically, financially, and administratively possible. It is now a model of inter-institutional cooperation providing continuing education needs.

The Three "R's" of the Eighties: Reduction, Reallocation and Retrenchment. Kenneth P. Mortimer and Michael L. Tierney. American Association for Higher Education, Washington, D.C., 1979.

A dismal picture of the environment of the 1980's is presented, based on demographic pressures combined with expenditure pressures that will grow faster than institutional revenues. Detailed analyses are given of current and projected revenue sources as well as of expenditure rates. The particular problem of increased institutional Social Security contributions is explained.

The longest section of the report deals with the three R's of the title. Examined first are ways to reduce expenditure growth rates and the budget base, for example, by changes in faculty composition or in student-faculty ratios. Strategies for internal reallocations are next examined, with emphasis on program review as a means of assessing institutional vitality as well as examining costs. Lastly,

the hard choice of faculty reductions and dismissals, program discontinuance, and legal implementation of the dread term "financial exigency" are considered. The experiences of three institutions -- the University of Michigan, the University of Pennsylvania, and the Pennsylvania State College System -- are used as examples of the three R's.

Although the authors' premises are gloomy, their conclusions are not without hope. A strong concern for maintaining flexibility runs throughout the book. Flexibility is seen as important for dealing with financial stress but easily lost as budget cuts are made. Michigan's efforts to conserve flexibility by reducing all budgets by one percent each year to establish a priority fund for reallocation are examined closely.

Zero-Base Budgeting in Colleges and Universities. L. James Harvey. Ireland Educational Corp., Littleton, CO., 1978.

This brief manual is intended as a concise guide to understanding and implementing zero-base budgeting in higher education. The last decade has seen PPBS, MBO, and MIS come and partially go as budgeting systems. Harvey's guide explains in detail, with definitions, charts, and sample forms, how ZBB works and how it relates to, rather than replaces, other management techniques.

ZBB is a budget-planning process that attempts to force the institution to select the best budgetary alternative available, consistent with goals and objectives, by focusing on a complete justification of all expenditures at budget-planning time. Thus, a zero base is used as the initial assumption rather than the current year's base. This approach can lead to eliminating fat from the budget by building a necessary minimum rather than constantly expanding an existing base. Harvey examines the advantages and disadvantages of ZBB and then discusses in detail how to implement it. A key concept is the development of decision units and packages. A decision unit can vary in size from a course to an entire cost center. A decision package may represent alternative funding levels: minimal, maintenance and desired.

Harvey also discusses why ZBB often fails, how to apply it to personnel reductions, and various options for the frequency of use of ZBB. Although ZBB will probably not become the system for budgeting any more than PPBS has, it will have its impact on the budgeting process, and this monograph is a handy introduction to it.

## Addresses of Publishers and Associations:

American Association for Higher Education, One Dupont Circle, N.W.,  
Washington, D.C. 20036

American Council on Education, One Dupont Circle, N.W.,  
Washington, D.C. 20036

Business Research Bureau, University of South Dakota,  
Vermillion, S.D. 57069

College and University Personnel Association, 11 Dupont  
Circle, N.W., Washington, D.C. 20036

Jossey-Bass Publishers, 615 Montgomery Street,  
San Francisco, CA 94111

NCHEMS, P.O. Drawer P, Boulder, CO 80302

13. Quality, Self-Assessment, Mission  
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Alan Knox

The Assessment of College Performance

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The Autonomy of Public Colleges

Paul Dressel

Building Bridges to the Public

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Challenge: Coordination and Governance in the 80's: A Report on Issues and Directions in Statewide Coordination and Governance of Postsecondary Education in the 1980's

Evaluating Educational Quality: A Conference Summary

Alexander W. Astin, Howard R. Bowen, and Charles M. Chambers

Evaluative Checklist: An Instrument for Self-Evaluating an Educational Media Program in Colleges and Universities

W.R. Fulton, Kenneth L. King, Fred A. Teague, and Roger N. Tipling

Expanding the Missions of Graduate and Professional Education

Ed. Frederic Jacobs and Richard J. Allen

Graduate Education in Pennsylvania in the 1980's

"Graduate School Education, Proposals for the Eighties"

Ed. Merrill T. McCord

A Handbook for Self-Assessment

Investment in Learning. The Individual and Social Values of American Higher Education

H. R. Bowen

Measuring Organizational Effectiveness in Institutions of Higher Education

Kim Cameron

"Part-Time Faculty in Colleges and Universities"

Thomas A. Emmet, et al

The Philosophy and Future of Graduate Education

Ed. William K. Frankena

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Sponsored Research as a Solution to Four Pervasive Problems in Graduate  
Education, AIR Forum 1979 Paper  
Susan Hellweg and David Churchman

Transferring Experiential Credit  
S.V. Martorana and Eileen Kuhns

Assessing the Impact of Continuing Education. Alan Knox. New Directions for Continuing Education, No. 3, Jossey-Bass, San Francisco, CA., 1979.

Assessing the Impact of Continuing Education makes a particularly original and valuable contribution to the field, which in the past has not been greatly concerned with program evaluation. Alan Knox first sets forth his concept of "impact evaluation" and then gives a number of illustrative examples. Succeeding chapters deal with limitations of test scores, evaluations of cooperative extension programs, military literacy programs, an urban nontraditional degree program, and management training. Finally, several chapters deal with a number of general issues in assessing impact.

The Assessment of College Performance. Richard I. Miller. Jossey-Bass, San Francisco, CA., 1979.

This volume is a handbook of techniques and measures for institutional self-evaluation that, as the author summarizes in the preface, "reviews the elements that combine to form a college or university; it identifies measures, policies and procedures that can help ascertain the extent to which an institution is going where it wants to go; and it advocates a manageable and flexible approach to appraising the overall quality of the institution."

The book offers forty-five evaluative criteria in ten aspects of the academic enterprise: goals and objectives; student learning; faculty performance; academic programs; institutional support staff and services; administrative leadership; financial management; governing boards; external relations; and institutional self-improvement.

Five approaches to institutional evaluation are currently being used: educational auditing, assessments by external consultants, self-studies for accreditation, self-studies for other purposes, and state and federal reviews. The author suggests six guidelines in tailoring an evaluation plan to a specific institution or system: (1) vigorous and sensitive administrative leadership is crucial; (2) an overall evaluation plan should be developed and communicated; (3) the process is as important as the product; (4) Evaluators should use objective data where available and purposeful, but make no apologies for using subjective data; (5) evaluation should be action oriented; (6) a plan for evaluating the evaluation should be included.

The appendices contain information on comparative studies of graduate and professional schools, institution-wide studies, and an annotated bibliography.

The Autonomy of Public Colleges. Paul Dressel (Guest Editor with the assistance of Thomas M. Freeman and Albert B. Lynd). New Directions for Institutional Research Series. Jossey-Bass, San Francisco, 1980.

The nature and history of universities as autonomous institutions is discussed in this sourcebook. Recent erosions to the autonomy of a university include emphasis on line item budgets, audits, formula budgeting and imposition of uniform data collection and reporting procedures, and faculty excesses and responsibility. The role of government intervention and control is pursued. Coordinated activity, while in itself a concern related to autonomy, is explored as a possible strategy to preserve the autonomy of the entire system. Three state coordination models, Ohio, Indiana and Wisconsin are reviewed.

Building Bridges to the Public. Ed. Louis T. Benezet and Frances W. Magnusson, New Directions for Higher Education No. 27, Jossey-Bass, San Francisco, 1979.

Written for higher education administrators rather than for institutional advancement professionals, this book gives a good overview of why higher education needs more public understanding, and how to build that understanding. The opening chapter points out that America's colleges and universities must "increase their candid self-assessment, self-renewal, and self-regulation if they are to regain public support and fend off government encroachment." Several authors tell how their colleges and universities developed academic and service programs that, by contributing to the public interest, naturally have built public support for the sponsoring institution.

Challenge: Coordination and Governance in the 80's: A Report on Issues and Directions in Statewide Coordination and Governance of Postsecondary Education in the 1980's, Report No. 134. Education Commission of the States, Denver, CO., 1980.

This report is the culmination of a project whose purpose was to examine the impact of changing conditions in postsecondary education on state education agencies. The project also sought to provide an objective review of state agency systems of coordination, governance and structure. Recommendations suggest ways in which state boards can exercise their powers to solve problems of postsecondary education through appropriate state agency functions. Topics discussed include planning, evaluation and appraisal, program review, state management and higher education, and financing and budgeting. Each chapter concludes with several well placed, carefully supported recommendations.

Evaluating Educational Quality: A Conference Summary. Alexander W. Astin, Howard R. Bowen, Charles M. Chambers. Council on Postsecondary Accreditation, Washington, D.C., 1978-79.

This pamphlet contains three timely conference addresses on the need for accrediting bodies to focus on educational outcomes. While not specific to graduate education, the discussion of a simple Management Information System directed at collecting information on student outcomes, stems from thoughtful analysis of outcome assessment as the most credible way of determining quality and applies to the basic mission of the university whether at the graduate or undergraduate level.



Evaluative Checklist: An Instrument for Self-Evaluating an Educational Media Program in Colleges and Universities, 3rd ed. W.R. Fulton, Kenneth L. King, Fred A. Teague, and Roger N. Tipling. Association for Educational Communications and Technology, Washington, D.C., 1979.

This work offers a self-evaluative checklist designed for higher education institutions. The checklist does not require extensive inventory of all program resource items, and permits comparisons to determine strengths and weaknesses of program elements. It is based on research that characterizes six elements that should be present in sufficient quality and quantity: administrators and teachers committed to using educational media; educational media administered as an integral part of curriculum and instruction; an accessible educational media center; good physical facilities; adequate financing; and an adequate, qualified staff.

Expanding the Missions of Graduate and Professional Education. Ed. Frederic Jacobs and Richard J. Allen. New Directions for Experimental Learning Series, No. 15, Jossey-Bass, Inc., Washington, D.C., 1982.

This volume provides numerous perspectives concerning graduate education and experiential learning, and proposes some changes for graduate programs. The state of the art in evaluating learner competencies in off-campus graduate experiences is reviewed. The next chapter outlines review procedures and pedagogical strategies which can be used in establishing experiential graduate programs; chapter three traces the changes in relationships of universities to society which point to a need for greater flexibility in graduate instruction and research. From a discussion of principles of good practice a model of graduate level assessment of experiential learning is proposed by Joan Knapp. The role of experiential learning in the changing environments of graduate institutions requires that we question our assumptions about organizational mission, learner competencies and faculty roles. These assumptions are discussed in Richard J. Allen's paper and are followed by Charles E. Oxnard's recommendations including making logical connections between our research and teaching faculties on the entire continuum of our higher education system and acknowledging that experiential learning should serve a major function at the graduate program level. Robert J. Hatah suggests a problem solving model for professional study and Robert F. Kruh discusses forms of alternative graduate programs and suggests that while universities should be flexible they need to guard against diluting their programs. This is an important book in the discussion of the changes in order for graduate education to remain a relevant part of our education system.

Graduate Education in Pennsylvania in the 1980's. Graduate Education Advisory Committee. Pennsylvania Department of Higher Education, Harrisburg, 1981.

This report is an in-depth assessment of graduate education, public and private, in the state of Pennsylvania. It includes a series of recommendations to institutions offering graduate education, recommendations on interinstitutional cooperation, and recommendations to the state. A recurring recommendation in the report is for regular ongoing assessments of program offerings in light of institutional missions and student needs. The report provides a valuable model for similar state-wide or regional studies.

"Graduate School Education, Proposals for the Eighties." Ed. Merrill T. McCord. Journal of Medical Education, 56, 1981.

This entire issue is about graduate medical education. Some of the topics discussed include evaluation of graduate medical education in the U.S., quality, transition between undergraduate and graduate, national standards and accreditation, and specialty distribution and financing. Numerous demographic tables are included.

A Handbook for Self-Assessment. University of the State of New York, Albany, N.Y.

Sixteen models of self-assessment are described. Included are community colleges, four-year colleges and graduate and professional programs. Among the models of interest to graduate school administrators are learning contracts in the graduate programs at Hofstra, graduate school curricula related to career needs of Clarkson College of Technology students, and the graduate engineering programs at Polytechnic Institute of New York. Other assessment models describe faculty development, long-range planning and administrative functions, review of student services, and a study of conditions for learning. A brief overview of criteria used in self-assessment, a selected bibliography, and several essays on the effective use of self-assessment process are also included.

Investment in Learning. The Individual and Social Values of American Higher Education. Howard R. Bowen. Report issued by the Carnegie Council on Policy Studies in Higher Education, Jossey-Bass, Inc., San Francisco., 1977.

A comprehensive analysis about the consequences of American higher education, this book seeks to answer the broad accountability question about whether American education is worth its cost. Thus outcomes are explored in an effort to link higher educational research and higher education policy. The book contains four parts:

Part I, reviews the structure and boundaries of higher education and develops a three-page list of goals which are then further studied in Parts II and III.

Part IV frames conclusions about the worth of future higher education. Goals for the individual are articulated in Part II, including chapters on cognitive learning, emotional and moral development, practical competence (citizenship, responsibility and economic productivity), and social competence regarding family life, consumer behavior, leisure and health. Thus, the individual goal encompasses a total approach to student outcomes. Part three explores societal outcomes from education as well as research and public service. It analyzes our progress toward human equality and examines the economic returns of a higher education. Finally, it reports the views of social critics from Ivan Illich to James Coleman. The overriding conclusions of the studies and essays reviewed is that "higher education is enormously effective." The concluding chapters defend that statement.

Measuring Organizational Effectiveness in Institutions of Higher Education. Kim Cameron. National Center for Higher Education Management Systems. Boulder, CO.

Cameron begins this monograph by listing the problems in selecting the criteria by which organizational effectiveness is to be measured. He discusses the types of criteria to be used, and the sources from which they should be derived. He notes that selecting the criteria for measuring university and college effectiveness presents unique difficulties because of problems in specifying concrete, measurable goals and outcomes; overcoming faculty skepticism and defensiveness; and dealing with the institutional view of its uniqueness relative to all other institutions.

He demonstrates how a questionnaire was developed covering several categories that seemed to define institutional effectiveness, and how the people were selected to whom the questionnaire would be mailed (data source). Sample testing indicated that his approach was valid, but also indicated that it is a first step only in approaching a fine-grained analysis of college and university effectiveness.

This piece is useful in many ways. It reinforces some common attitudes, explodes some common myths, and explains how effectiveness, as opposed to efficiency, might be measured. It also includes an extensive bibliography. Unfortunately, although it includes items measuring effectiveness dimensions, it does not include a sample questionnaire.

"Part-Time Faculty in Colleges and Universities." Thomas A. Emmet, et al. Current Issues in Higher Education, No. 4. American Association for Higher Education, Washington, D.C., 1981.

This monograph addresses the issues of part-time faculty and the institutions' need to develop adequate personnel policies regarding the use of part-time faculty. One article describes the part-time faculty and the implication of this group to the academic and research mission of institutions of higher education. Another discusses the legal position of part-time faculty using a state-wide study in West Virginia as a model. A third provides a model for faculty development in operation at Vista, a noncampus college in California.

The Philosophy and Future of Graduate Education. Ed. William K. Frankena.  
University of Michigan Press, Ann Arbor, MI., 1980.

Focusing on critical issues facing graduate education, these papers presented at a conference sponsored by the National Endowment for the Humanities (NEH) examine areas such as declining enrollments, job shortage among college teachers, and the role of graduate schools in relation to the various intellectual disciplines. The overview paper, "Graduate Education: A Case for the Public Interest" (Joseph Duffey), outlines the necessity for public funding and support of higher education and the NEH commitment to academic life. Part I, "The Aims of Graduate Education," contains the following papers: "The College, the University, and Society"; "The Philosophy of Graduate Education"; "Graduate Education in the Humanities: Reflections and Proposals"; "Reflections on the Graduate School"; "The Antinomies of Higher Education"; and "Past, Present, and Future in Graduate Education." Part II, "The Prospects of Graduate Education," contains: "Graduate Education as Ritual and substance;" "The Disciplinary and the Professional in Graduate School Education in the Social Sciences;" "Graduate School in an Age of Stasis;" "Institutional Policy Setting: A Dynamic View;" "Future Social Needs and Demands for Highly Education People;" and "The Philosophy and Future of Graduate Education: A Summary."

The Professions and Public Policy. Ed. Philip Slayton and M.J. Trebilcock.  
University of Toronto Press, Toronto, 1978.

A collection of essays on the issues surrounding education in the professions, this book provides focus to the discussion of policy formulation concerning current dilemmas. Part I discusses competition as an underlying policy and the implication of such a policy in self-regulation and federal regulation and consumer rights.

Part II contains essays about professional education, including the belief in a meritocracy and its relationship to certification and licensure. Part III frames the policy implication of supply and demand including employment forecasting and universal access. Part IV reviews the issues of training paraprofessionals in health and law. Part V deals with such problems as unionization, bicameral structure (e.g. dual forms of decision making -- the Board of Trustees and the university Senate), and government restraint programs for professional incomes. The final section discusses competence as a policy issue and the enforcement of a professional code. This enlightening book concludes with a short statement by Ivan Illich in which he decries the "need-makers" who legislate what we need as well as what we are entitled to get and labels our time as the "Age of Disabling Professions" as demonstrated in his statement: "Beyond a certain degree of dominance, medicine engenders helplessness and disease; education turns into the major generator of a disabling division of laborers and fast transportation systems . . . turn urban people for 17% of their working hours into passengers . . ."

Program Review in Higher Education. Robert J. Barak. National Center for Higher Education Management Systems, Boulder, CO., 1982.

This book is an overview of the various kinds of academic review currently being used among higher education institutions in the United States. Barak describes program, department, and university reviews carried out internally and externally and mandated by departments, institutions, systems, and state agencies.

Barak's study, based on a survey of one thousand and eighty-two institutions varying in size and mission from community colleges through comprehensive research universities, is more descriptive than prescriptive, more a report on what is being done than what should be done. However, he does report on the opinions of those engaged in the review process as to what should happen in reviews, and in that manner offers advice about successful and unsuccessful approaches.

A Question of Quality; The Higher Education Ratings Game. Judith K. Lawrence and Kenneth C. Green. AAHE-ERIC/Higher Education Research Report No. 5., American Association for Higher Education, Washington, D.C., 1980

Studies concerning attributes of quality in higher education as defined in academic studies are reviewed. Separate reviews are presented for studies of quality at the graduate level, in professional programs, and at the undergraduate level. Academe's continuing attempts to quantify "quality" so as to measure it empirically rather than subjectively through reputational ratings are examined. In addition, accreditation and state program review, both of which exemplify external approaches to assessing quality in American higher education are discussed. In academic studies, usually conducted by researchers from the higher education community, assessments have focused on identifying the best institutions (or graduate departments). It is concluded that whether based on peer review or on the application of a set of traditionally-used quantifiable indicators, such assessments ignore about 99 percent of the nation's higher education institutions. It is suggested that these rankings serve to reinforce the hierarchical structure of the system, whereby material and human wealth tend to be concentrated in a few institutions. It is also noted that the teaching-learning function of higher education has been virtually ignored in quality assessments. Conclusions and recommendations as to how quality in higher education might be better defined and how methods of assessing quality might be improved are presented. A bibliography is included.

Recommendations on Credentialing Educational Accomplishment. American Council on Education Task Force on Educational Credit and Credentials, Washington, D.C., 1978.

Beginning with a succinct page of definitions of credit unit, degree, educational credential, external degree, extra institutional learning, higher education, and postsecondary education, this monograph proceeds to articulate a series of fifteen recommendations for institutions in reaching some consistency about how credit is evaluated and awarded. As a base upon which graduate education builds, the information contained in this monograph is good background.

Sponsored Research as a Solution to Four Pervasive Problems in Graduate Education, AIR Forum 1979 Paper. Susan Hellweg and David Churchman. Paper presented at the Annual Forum of the Association for Institutional Research (19th), San Diego, CA., May 13-17, 1979.

Four problems that will be of major concern to academic institutions granting graduate degrees in the coming decade and ways in which sponsored research can help solve them are discussed. The four problems are defined as: (1) the threat posed to research performed by faculty by increased teaching loads; (2) the increasing lack of opportunities for new graduates of doctoral programs to join faculties; (3) the continuing pressures that academic institutions are under to increase the number of women and minorities on their teaching staffs; and (4) the changing employment prospects of students completing their graduate degrees, and thus the skills they need to acquire. A five-point model is proposed which is designed to provide a solution to each of these problems through the generation of sponsored research. The model incorporates practical experience for students in their fields; use of grant monies to provide financial aid for students; active involvement of professors in research in their fields; release of tenured faculty to do research and concomitant hiring of adjunct faculty to broaden the range of ideas and course offerings; and use of the adjunct faculty positions created with grant money to increase the number of women and minority faculty members. Examples of specific federal funding programs available to support such research endeavors are mentioned, such as the National Science Foundation's Minority Institutions Graduate Traineeship Program.

Transferring Experiential Credit. S.V. Martorana and Eileen Kuhns (guest eds.) New Directions for Experiential Learning Series. Jossey-Bass, San Francisco, 1979.

As a state of the art critique about the portability of credit for experiential learning, graduate school responses to recognition of credit as well as good practice guidelines for transcribing experiential learning are discussed. Various models are contrasted. Among the models included are a collegial model and an adversarial model (the model most commonly encountered). The last section of the book discusses leadership roles which can be played by faculty, state and federal agencies and accrediting organizations. An underlying premise appears to be that credit must be related to the purpose of the learning experience involved; to competence developed rather than to activity undertaken.

## Addresses of publishers and associations:

American Association for Higher Education, One Oupont Circle, N.W.,  
Washington, O.C. 20036

Council of Postsecondary Accreditation, One Oupont Circle, N.W.,  
Washington, O.C. 20036

Education Commission of the States, 1860 Lincoln Tower,  
Denver, CO. 80203

Jossey-Bass, Inc., 433 California Street, San Francisco, CA. 94111

National Center for Higher Education Management Systems,  
Drawer P, Boulder, CO. 80302

Pennsylvania Department of Higher Education,  
Harrisburg, PA

University of Michigan Press, P.O. Box 1104,  
Ann Arbor, MI 48106

Articles of further interest from CGS Proceedings:

Barry, Oavid G., 16 (129-30)

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Zauchenberger, Herwig G. 17 (50-57)

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Downey, Bernard J. 17 (41-46);  
18 (216-30)

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14. Students' Admission, Retention, Evaluation, and Other Issues  
Section Contents

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Winton H. Manning, et al

Talented and Needy Graduate and Professional Students

Herbert J. Flamer, Dwight Horch, and Susan Davis

What Works in Student Retention.

Philip E. Beal and Lee Noel



Ability Tests: Uses, Consequences, and Controversies. Ed. Alexandra K. Wigdor and Wendell R. Garner. Two Volumes. Part I: Report of the Committee. Part II: Documentation Section. National Academy Press, Washington, D.C., 1980.

The report of the Committee surveys testing practices in a variety of educational and employment settings and analyzes the most significant technical questions and issues of social policy facing test takers, test users, policy makers, and, increasingly, the courts. The report is accompanied by a volume of signed papers, written by committee members, staff members, and outside experts, in which the reader will find a rich introduction to the case law, the research literature, and the data sources on ability testing.

"Beyond Survival: Policies for Academic Revitalization in an Uncertain Environment," Thomas Fleming, Canadian Journal of Higher Education, 10, 1980, 103-115.

Educational developments since 1945 are described, particularly those influencing the present climate of adversity, and ways these historical forces have altered the complexion of university governance are explored. Six policies are offered for promoting institutional renewal in Canada through the regeneration of the teaching/research force.

Effects of Self-Study of Test Familiarization Materials for the Analytical Section of the GRE Aptitude Test. Donald E. Powers and Spencer S. Swinton. Educational Testing Service, Princeton, N.J., 1982.

The results are reported for an experimental study conducted to examine possible differential susceptibility to special preparation of three GRE analytical item types, to determine whether self-study to familiarize oneself with test materials would result in improved scores -- as compared with test improvement as a result of formal instructional preparation -- and to determine which preparation components might be most effective. Various groups of candidates were studied. Two item types -- analysis of explanations and logical diagrams were found to be susceptible to special preparation. Self-study proved effective for these item types.

Financial Aid for Self-Supporting Students: Defining Independence. Alan P. Wagner and Nancy Carlson. College Board, Washington, D.C. Office, 1983.

The authors examine the current descriptions of the independent student and its flaws, and show the financial aid effects of imposing that description. They subsequently examine several redefinitions, show their impact, and conclude with a general statement about necessary directions for financial aid to independent students.

The monograph includes several important sets of data, and an appendix outlining eleven Department of Education options. Although this work is aimed at policy making, the data and the close analysis of the problems involved in defining independence are valuable, particularly because virtually all graduate students are de facto independent.

James A. Langley vs. Commissioner of Internal Revenue. Excerpts from a graduate student income tax case, Iowa State University, Ames, 1982. For further information, contact Warren R. Madden, Associate Vice-President and Treasurer, I.S.U.

The case in question was a successful suit by a graduate research assistant to establish that his research assistantship should not be taxable. The document outlines in some detail the reasons why this assistantship (which is, in fact, typical of most research assistantships) is not taxable.

The key question was whether or not Langley was paid to enable him to study or do research on a degree, or to compensate him for his services. The court decided he was paid to study, for the following reasons, among others:

1. Acquiring research skills are basic to the graduate program.
2. The acquired research skills carry over into dissertation research, even though the RA research was not a part of the dissertation.
3. The student received academic credit for his RA research.
4. The RA stipend was not linked to hours worked; the student actually worked more than the twenty hours per week noted in the appointment.
5. The student's work as an RA was informally reviewed; the advisor did not act as supervisor.
6. The student did not have to turn over his research to anyone outside the department.
7. Both student and department perceived the RA as a form of financial aid.
8. The trappings of regular employment (fringe benefits, unemployment compensation) were not present.

In an interesting conclusion, the court describes the I.R.S.'s view of academic research as a "Research Factory," separate from graduate education and staffed by RAs playing the role of "assembly line workers." On the contrary, says the court, "the record establishes, and common sense would seem to indicate, that research at I.S.U. is part and parcel of its educational mission."

Measuring Achievement: Progress Over a Decade. Ed. William B. Schrader. New Directions For Testing and Measurement, No. 5. Jossey Bass, Inc., San Francisco, 1980.

The result of the 1979 ETS Invitational Conference, this sourcebook generally discusses testing theory as it relates to ability, aptitude and achievement. Three major movements represented in the first three papers by Ann Anastasi, Benjamin S. Bloom, and Richard E. Snow are reacted to in succeeding presentations. Educational theory, test design, validity, measurement, content theory and the potential for formative evaluation are discussed.

"The Myth of Leadership Among Colleges and Universities," Richard D. Johnson, North Central Association Quarterly, 54 (Summer 1979), 25-32.

Johnson shows how a change in the kinds of questions asked in "Top Ten Universities" surveys can change the schools which always are ranked among the best in the country. Johnson's model survey included questions like "Which institution has had the most affect on your own?" and "Which institutions do you perceive to be most innovative in structure or curriculum?"

Although Johnson assumes innovation to be automatically good, his new approach to traditional measures of quality are useful. The question regarding influence is particularly interesting. This article could be helpful in explaining to everyone from disgruntled faculty to angry alums why dear old Tech did not consistently rate a 50 in the Conference Board's Assessment of Research Doctorates.

Retention and Attrition: Evidence for Action and Research. Oscar T. Lenning, Philip E. Beal, and Ken Sauer. National Center for Higher Education Management Systems, Boulder, CO., 1980.

This book provides a quick introduction to the relevance of retention and attrition to institutional management. While these factors were once believed to be the natural consequence of the competitive process in our schools, they are now recognized as elements which drain considerable resources of institutions. Graduate schools are just now beginning to struggle with the implications of attrition for their mission, their institutional reputation, and their future capability to attract students. Part I of this book is a discussion of the general issues mentioned above and provides a clarification of the terminology used in attrition/retention studies. Part II groups studies according to their focus and provides a conceptual synthesis of those studies. Throughout the book strategies for action and policy development are provided.

Selective Admissions in Higher Education. Public Policy and Academic Policy; The Pursuit of Fairness in Admissions to Higher Education; The Status of Selective Admissions. Winton H. Manning, et al. Report issued by the Carnegie Council on Policy Studies in Higher Education., 1977.

The selective admissions issue in higher education is examined in this book from three perspectives. Part One on public policy and academic policy includes comments and recommendations by the Carnegie Council on Policy Studies in Higher Education. Part Two deals with Fairness, including: the role of values in pursuing fairness in admissions; institutions and individuals in the admission process; arguments for consideration of race in admissions policies; educational due process in admissions; a two-stage model of the admissions process; special programs; and decision strategies. Part Three examines admissions; covers selective undergraduate admissions; admissions to graduate schools of arts and sciences, law schools, medical schools, and management schools; and use and limitations of selection measures. Appended are statistical data and data on student performance on selective measures. An eight-page bibliography is included.

Talented and Needy Graduate and Professional Students. Herbert J. Flamer, Dwight Horch, and Susan Davis. Educational Testing Service, Princeton, N.J., 1982.

The study was undertaken to examine how people who apply for need-based financial aid pay for their graduate and professional educations; how support patterns vary between the college senior year and the first year of graduate and professional school; the role of parents in financing undergraduate versus graduate school costs; costs of attendance at the graduate and professional school level; and students' cumulative educational indebtedness. The study also focuses on the role of financial aid for minority students. Breakouts of graduate students' budgets are given as well as cost of graduate programs in private and public institutions. The effect of federal financial aid on graduate student participation is discussed.

What Works in Student Retention. Philip E. Beal and Lee Noel. The American College Testing Program, Iowa City, IA., and the National Center for Higher Education Management Systems, Boulder, CO., 1980.

This report focuses upon variables that colleges can do something about: orientation programs, counseling, financial aid, adequate information, and so on. The report suggests a broad range of actions that cut across many college activities and that could, with retention as the focal point, have a broad impact on institutional quality.

## Addresses of publishers and associations:

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Educational Testing Service, Princeton, N.J. 08541

Jossey-Bass, Inc., 433 California Avenue,  
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National Academy Press, 2101 Constitution Avenue, N.W.  
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National Center for Higher Education Management Systems,  
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Articles of further interest from CGS Proceedings:

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| Beichner, Paul E., 5 (32-7)               | Sjogren, Cliff, 12 (93-6)             |
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15. University/Industry Relationships  
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Agenda for Business and Higher Education, Business -- Higher Education Forum  
Ed. Thomas W. Stauffer

Business and Academia: Partners in New England's Economic Renewal  
Ed. John C. Hoy and Melvin H. Bernstein

Education in Industry: A Research Report  
Seymour Lusterman

Fact Book on High-Technology and Energy-Related Higher Education in the West

High Technology Manpower in the West: Strategies For Action

"Higher Education & Corporate America: Toward More Productive Partnerships"  
William R. Monat and W. John Pembroke

Industry and the Universities: Developing Cooperative Research Relationships in the National Interest

Industry-Education-Labor Collaboration: Designing Mechanisms for Sustained Impact  
Gerald G. Gold

Industry-Sponsored Research and Consultation: Responsibilities of the Institution and the Individual

Industry/University Cooperative Programs

A Model of University/Agency Collaboration For Public Service Research and Dissemination  
Noreen Dowling

Models for Collaboration: Developing Work-Education Ties  
James W. Wilson

"Partnership With Business and the Professions"  
K. Patricia Cross, Ernest A. Lynton, Philip N. Nowlen, and Milton R. Stern

Training and Education in Industry  
Harold Goldstein

Agenda for Business and Higher Education, Business -- Higher Education Forum.  
Ed. Thomas W. Stauffer. American Council on Education, Washington, D.C., 1980.

Basic issues that have received attention at forum meetings are discussed in this book. The forum brings together corporate and academic leaders in an effort to share common concerns and develop strategies for closer cooperation. A list of such common concerns is outlined and papers develop specific themes in this volume. A paper on federal regulation describes the role of the federal government in providing a separate identity to those endeavors outside its function while defending their parameters for action. A basic question follows about the extent of government involvement and whether this compromises the autonomy of the private sector. A paper on productivity results in ninety-nine recommendations on policy options for improving the productivity rate and includes discussion of capital formation, spending and savings levels, regulation by government and research and development. A chapter on energy research includes recommendations for "goal-oriented basic research," education of scientists, and mechanisms for implementation of energy research programs. Finally, a paper on international business and international studies commissioned by the forum considers linkages between foreign market interests of corporations and international studies programs on American campuses. Specific proposals for improvement of programs through collaborative efforts of industry and universities are made.

Business and Academia: Partners in New England's Economic Renewal. Ed. John C. Hoy and Melvin H. Bernstein. New England Board of Higher Education, University Press of New England, Hanover, N.H., 1981.

The essayists who contributed to this volume discuss several topics related to the aims and value of university-industry relations. Melvin Bernstein traces New England's reindustrial renewal and the role of higher education in it. John Hoy outlines the economics of higher education as an "industry," concentrating on the expenditures of the industry and their economic impact on local communities. Charles Stokes examines five nationally-renowned research centers and their impact on local communities. Other writers chart future choices for higher education in light of market influences; initiatives of higher education to help the economy; and ways of expanding higher education's role in regional (New England) economic development.

A common theme runs throughout these essays: in the past, higher education and the business community have not worked closely enough together on substantive economic issues. Several examples of successful planning initiatives are described.

Education in Industry: A Research Report. Seymour Lusterman. The Conference Board 719, New York, N.Y.

This document reports a study of the aims, scope, and character of employee education and training activities among corporations having 500 or more employees. The first section describes employee education and training activity. The second section describes industry's use of outside resources for staff development and its own after hours programs. The third section describes those internal programs conducted during working hours. The final section reports on business executives' views about industry/school cooperation. Case studies are presented on the training activity of three companies.

Fact Book on High-Technology and Energy-Related Higher Education in the West. Western Interstate Commission for Higher Education, Boulder, CO., 1983.

The Fact Book is a collection of statistics, laid out in charts, tables, graphs, etc. which are germane to high-tech and energy industries in the west. Not all of the facts are from western states; where appropriate (scientists in the labor force, for example) they represent national statistics. At other times, they show state-by-state breakdowns.

The report presents information on overall national productivity growth, relative concentration of high-tech and energy industry and manpower in the west, national projections of labor demands, and the current supply of labor in high-tech and energy fields. The book concludes with statistics relevant to problems in education: science and engineering faculty shortages, number of foreign nationals in graduate engineering programs, obsolete equipment, unprepared students.

Because the Fact Book draws together data on energy and high tech from many different studies, it is helpful as a source book for an area of growing importance.

High Technology Manpower in the West: Strategies For Action. Western Technical Manpower Council, Western Interstate Commission for Higher Education, Boulder, CO., 1983.

The report is both an assessment of current resources in the western states, and a plan of action for developing the western economy based on high-technology research and development.

The report's authors point out that education is vital to high-tech research and development, and they argue that both education and high-technology industries will benefit from joint manpower planning. Some suggestions, such as industrial fellowships and internships, have been made before. Provision of certain pieces of technical equipment for teaching purposes, as recommended by the Council, is being done now. Some Council recommendations, such as industrial input in curriculum development, will have to be treated with a great deal of caution.

As an industrial view of the university/industry partnership, this report is interesting. The strategies that it outlines could conceivably be implemented to a greater or lesser extent in many regions of the country.



"Higher Education & Corporate America: Toward More Productive Partnerships," William R. Monat and W. John Pembroke, WICHE Reports, 27 (Summer/Autumn, 1982), 6-7, 16.

The authors examine the roles of the states, corporations, and higher education institutions in stimulating research on campuses. The historically successful programs in agricultural research are presented as models for similar programs in other areas, particularly in high technology.

The authors warn that industrial organizations will have to modify somewhat their expectations of quick payoffs, and that institutions will have to overcome their distrust of corporate research practices.

Major recommendations include adding corporate and higher education representation to state commissions of economic development, developing state investment and taxation strategies which encourage corporate support of higher education research, and establishing joint university-corporate advisory boards on research.

Industry and the Universities: Developing Cooperative Research Relationships In the National Interest. National Commission on Research, Washington, D.C., 1980.

The background and history of the relationship between industry and universities is outlined. A summary of the trends in support of basic research from 1950 to the present is provided. These trends show the shift from basic research to applied research and development. Fundamental principles that guide government, universities, and private industry are used to point out the consequences of lack of cooperation as well as the benefits and hazards arising as a result of cooperation, and the roles and responsibilities each should play in order to be effective. Recent new initiatives and alternatives are described including government financial incentives for industrial support of university research.

Industry-Education-Labor Collaboration: Designing Mechanisms for Sustained Impact. Gerald G. Gold. National Institute for Work & Learning, Washington, D.C., 1981.

Delivered as a paper at the annual meeting of the American Educational Research Association, this article discusses the barriers to communication between education and work. Among them are different formats for teaching and learning (team efforts in work settings and some team teaching or learning in education) and different motivational sets. Four functions which characterize relationships between work and education settings are learning experiences and setting; the flow of human resources; new ideas; and products and strategy development. One strategy addressed in this paper is the formation of a collaborative council to bridge the gap between education, and labor and industry.

Industry-Sponsored Research and Consultation: Responsibilities of the Institution and the Individual. Association of American Medical Colleges, Washington, D.C., 1978.

This paper addresses four issues: the propriety of conducting industry-sponsored research in schools of medicine; necessary institutional safeguards; individual responsibilities of academic scientists; and the implementation and monitoring of the recommendations made in the working paper.

Industry/University Cooperative Programs. Proceedings of a workshop held in conjunction with the 20th annual meeting of The Council of Graduate Schools in the United States. CGS, Washington, D.C., 1980.

These workshop papers provide both an overview of industry/university cooperative programs and some case studies of successful, operating programs. The overview is particularly important. In many of the statements, the potential for mutually beneficial relationships is outlined. However, a warning note is sounded by President Baron of the Shell Development Corporation: Unless cooperative relationships are carefully administered by both parties, the research enterprise could stray from the traditional (and valuable) university commitment to long-term research and begin concentrating on short-term projects with immediate payoffs.

The examples of successful relationships range from engineering through biology, and to the implementation of a degree program at New Mexico State University. All provide useful guidelines for initiating a variety of industry/university relationships.

A Model of University/Agency Collaboration For Public Service Research and Dissemination. Noreen Dowling. International World Futures Conference, Toronto, 1980.

This paper describes the Public Service Research Program at the University of California, Davis. The goal of the program is to develop a systematic approach to addressing policy issues through the collaboration of faculty and students and government or community agencies. Factors that have contributed to the success of the program are identified.

Models For Collaboration: Developing Work-Education Ties. James W. Wilson. American Society for Training and Development, Madison, 1980.

Several major categories of need which universities and business share are defined in this paper. Among them are human resources needs, the need to revitalize, and problem solving. Criteria necessary to achieve a successful collaborative relationship are enumerated. A number of possible needs and collaborative ways of meeting those needs are suggested.

"Partnership With Business and the Professions," K. Patricia Cross, Ernest A. Lynton, Philip N. Nowlen, and Milton R. Stern, Current Issues in Higher Education, No.3, American Association for Higher Education, 1981.

The authors of the three papers contained in this monograph suggest that it is important to establish cooperative programs with business and professional associations. To facilitate this, changes are needed in three institutional areas: operating procedures should be made more flexible; instruction should give more careful attention to the needs of adults; and employment policies should acknowledge the role of faculty as educational consultants.

Training and Education in Industry. Harold Goldstein. National Institute for Work and Learning, Washington, D.C., 1980.

This monograph supplies a description of private sector training efforts. Included are an examination of the role of employer provided training and education as part of the total skills acquisition structure. Estimate of the time spent on various kinds of training, a discussion of the challenges and problems industry-provided training is being asked to meet, and discussion of the role of government in enhancing industry's ability for education and training are also given. A strong case is made for the need to keep accurate records of training provided and participants involved.

## Addresses of publishers and associations:

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University Press of New England, Hanover, N.H. 03755

Western Interstate Commission for Higher Education,  
Drawer P, Boulder, CO 80302

Articles of further interest from CGS Proceedings.

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Women in Higher Education: A Contemporary Bibliography

Kathryn M. Moore and Peter A. Wollitzer

"Attracting Women to Psychology: Effects of University Behavior and the Labor Market," Lewis C. Soimon, American Psychologist, 33 (Nov. 1978).

This article reviews certain behaviors of graduate departments in regard to possible sex discrimination. It also evaluates job market conditions for men and women with data from a national sample of doctorate holders and from a recent survey of mobile or nontraditionally employed Ph.D.'s in psychology.

Career Patterns of Men and Women in Graduate Administration. Gail Fullerton and Carolyn Ellner. Paper presented at the annual meeting of the American Educational Research Association (Toronto, March 1978).

Designed to gather data on women in graduate administration, this study sought to determine career paths, work week patterns, satisfaction stemming from the administrative role, and methods of dealing with stress. Since little data were available about men in graduate administration to use for comparison, both men and women deans were surveyed. The major question addressed was: What significant differences are there between men and women in graduate administration in the colleges and universities belonging to the Western Association of Graduate Schools? Responses from the eighty-three males and nineteen female participants surveyed indicate that the backgrounds of women in graduate administration are more similar to those of men than different. Their patterns of career advancement also appear to be similar but women are more likely to be in acting or interim positions. Both sexes report similar contact patterns with colleagues, which indicates that women are not excluded from opportunities for informal decision-making. The psychic rewards derived from the job appear to differ for women and men, with men reporting more satisfaction from contacts with and service to faculty and students while women found leadership opportunities most rewarding. Stresses and coping patterns also differ.

The Condition of Women in Higher Education: A Decade of Progress, an Uncertain Future. Background Paper. David D. Levine. Sloan Commission on Government and Higher Education, Cambridge, MA., 1979.

Information on the participation of women and minorities in all fields and at most levels in American colleges and universities is presented, the condition of these underrepresented groups in the academic profession is examined, and future trends for the profession are projected. Enrollment data by type of institution, level of study, and various fields of study are presented for a number of decades, and in some cases from 1920-77. Appended materials provide a more detailed analysis of the availability of recent doctorate recipients with a detailed listing of subfields. Data on the sex and ethnic composition of American faculty, by rank, are presented. Findings indicate that the professoriate, particularly at the higher ranks, remains overwhelmingly white and male. It is concluded that affirmative action efforts will face difficulties in the future because of increasing retrenchment.

The Cost for Women in Graduate and Professional Schools: More Than a Question of Money. Nancy A. Fischer and Sharon D. Peters. Paper presented at the annual meeting of the Mid-South Sociological Association, Memphis, TN., 1979.

In an attempt to assess institutional discrimination against the female student, enrollment of men and women in different fields of study, matriculation and attrition rates, and biographical data are examined. Among the findings revealed by the literature review are the following: in almost all fields women graduate students are less likely to persist to obtain a doctorate than their male counterparts; women face barriers in admissions procedures and financial aid; the psychological support network in most male-dominated fields is severely curtailed for women; a female student is less likely to be taken under the wing of a professor because of her sex; course scheduling is usually arranged around full-time students, with few considerations for part-time students; and women are excluded from many traditionally masculine fields of study.

"Effect of Same-Sex and Cross-Sex Role Models on the Subsequent Academic Productivity of Scholars," Elyse Goldstein, American Psychologist, 34, (May 1979).

This article discusses the possible advantages of providing scholars with same-sex role models. Factors that may inhibit professional advancement in the case of cross-sex role models are described.

The New Woman and the Old Academe: Sexism and Higher Education. Jonah R. Churgin. Libra Publishers, Roslyn Heights, N.Y., 1978.

Discrimination against women in U.S. society and the academic world is detailed in the eight chapters of this book. Part I focuses on the socialization process that women undergo as Americans and as women students. The major portion of the volume, Part II, deals with sexism on campuses and the role of women in academe. Arguments concerning single sex colleges and the need for changes in higher education to meet the challenges of a modern world are presented. The arguments are illustrated with reports from Vassar College and Smith College. Alternative course offerings and women's studies programs are also investigated. Women in traditionally male-dominated professions, specifically law and medicine, are discussed. Although altering curricula and changes in teaching technique will be important strategies for change, the need for a strong commitment to counseling and support services for women students is emphasized. Programs such as affirmative action and external degrees for women are discussed as possible mechanisms to alleviate some of the traditional problems that women students must face.

Re-entry Women and Graduate School. Jeanne Fisher-Thompson. Project on the Status of Women, Association of American Colleges, Washington, D.C., 1980.

This report gives an overview of the issues surrounding the re-entry of women into graduate school. It briefly reviews legal considerations, the characteristics of the older woman part-time student, financial aid, and professional development including career planning. In each area recommendations are made for institutional change to accommodate this growing population.

Sexual and Gender Harassment in the Academy: A Guide For Faculty, Students and Administrators. Phyllis Franklin, et al. Modern Language Association of America, New York, N.Y., 1981.

This seventy-five page book addresses the fundamental issues and concerns of sexual and gender harassment and discusses the distinctions between the two terms. Steps for establishing definitions, determining codes and standards and developing grievance mechanisms and sanctions are proposed. Also included are discussions of recent judicial rulings, a selected bibliography, and codes of conduct and grievance procedures.

Sexual Harassment; A Report on the Sexual Harassment of Students. Frank J. Till. National Council on Women's Educational Programs, Washington, D.C., 1980.

Defines sexual harassment, explores the legal liabilities of institutions and tells what some institutions have done to deal with the problem of sexual harassment on campus.

Sexual Harassment Symposium Issue. Capital University Law Review, 10 (Spring 1981). Proceedings from the symposium of sexual harassment include articles on sexual harassment in education and in education institutions and information about how to file a complaint with the Office of Civil Rights. Review of books and films dealing with sexual harassment and a list of state and federal agencies handling claims are included in the issue.

Special Programs for Female and Minority Graduate Students. Higher Education Panel Report, No. 41. Frank J. Atelsek and Irene L. Gomberg. American Council on Education, Washington, D.C., Nov. 1978.

A study was conducted to assess the extent to which academic institutions are currently providing special assistance to women and minorities for graduate study. The survey was limited to formal programs designed specifically for female or minority students and is not an inventory of all opportunities. Coeducational and predominantly white colleges and universities awarding a professional degree, doctorate degree, or other degree beyond the master's were surveyed. Usable data were received from three hundred eleven institutions for a response rate of ninety-one percent. Nearly half of the doctoral and professional institutions offered some form of special recruitment, academic, or financial aid program to benefit female or minority graduate students. The degree of involvement varied by the control of the institution as well as by the type, with universities and public institutions being the most active. Certain fields of graduate study, notably law and medicine, reported an above average level of effort. The report includes fifteen statistical tables, a sample survey instrument, and information on institutional response to the survey, stratification design for weighting, and reliability of estimates.



The Study of Women Scientists/Engineers in Academe. Clare Rose, et al. ERIC, 1979. ED 180 352.

The principal data sources were the National Science Foundation's "Survey of Scientific and Engineering Personnel Employed at Universities and Colleges" and the "Survey of Graduate Science Student Support and Postdoctorals." Data were also obtained from site visits from a representative sample of nine of the total fifty leading doctorate-granting institutions included in the study. It was found that women scientists/engineers are in a period of transition in their status in academe. Increasing numbers are entering graduate programs, and a large proportion are being employed in top-ranked institutions and departments. However, most women scientists/engineers are employed in nontenured, nonladder research scientist positions. Policy implications pertain to the funding of scientific research programs, educational programs in the sciences for women, and future research on the career development of women scientific professionals.

Women and Minorities in Science and Engineering. National Science Foundation, Washington, D.C., 1982.

Intended to be a biennial statistical report on the participation of women and minorities in science and engineering employment and training, the report confirms that the level of participation of women and of racial and ethnic minorities in science and engineering is low. It suggests that there may be some relationship between their low participation and the extent to which these groups participate in math and science training at all levels. Chapter one reviews employment levels and work activity of women, minority women, racial minorities (Black, Asian and other) and Hispanics as distinct categories. Chapter two discusses labor market indicators including unemployment rates and salaries and underemployment. Chapter three identifies earned degrees, including graduate and post-doctoral appointments and mathematic and science training of the categories defined above. Statistical data tables and the definition of technical notes are included in the Appendices.

Women in Academe: Steps to Greater Equality. Judith M. Gappa and Barbara S. Uehling. Research Report No. 1, American Association for Higher Education, Washington, D.C., 1979.

A concise overview of the issues women face in academe, this monograph discusses the status of women students, institutional practices that affect women students' participation, and problems generated as a result of our socialization process. These discussions are followed by a review of the role of women's studies programs and women's colleges; the demographic data on women faculty and administrators; and hiring practices. Male and female work and career patterns are discussed as are outside influences such as marriage and child rearing. Finally, a discussion of the legal framework which regulates men and women's career opportunities is summarized. In a time when some strides have been made in equalizing professional opportunities for women, this monograph provides information which can assist people with information about the more subtle yet substantive issues which continue to surround women's push for equity.

Women in Higher Education: A Contemporary Bibliography. Kathryn M. Moore and Peter A. Wollitzer. National Association of Women Deans and Counselors, Washington, D. C., 1979.

A bibliography covering the period 1970 to 1979 provides information on research on academic women reported in journals and published and unpublished report literature. The first chapter is an overview of the research and methodological notes. The following chapters provide citations and annotations for literature in these areas: historical and contemporary perspectives; students (role behavior, careers, college/student interactions, adult women, discrimination, achievement behavior and persistence, minority women, characteristics of women students, counseling tools and techniques, sports, specific majors, rates of return, entire journal issues); graduate students (psychosocial factors in women's graduate study, placement and career, institutional structures, training in specific fields); administrators (discrimination, roles and characteristics, leadership development, miscellaneous); faculty (discrimination, strategies and instruments related to discrimination and its reduction, women in the disciplines, women versus men, traits, states, and productivity, and general studies); and bibliographies and demographic studies, including institutional and geographically delimited studies. Entries are indexed.

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Articles of further interest from CGS Proceedings:

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