

EDUCATIONAL PLANNING

Vol. 6, No. 2
Summer 1987

The Journal of The International Society for Educational Planning



PROMOTING THE STUDY AND PRACTICE OF EDUCATIONAL PLANNING

Editorial Review Board

- | | |
|--|--|
| Peter E. Angelini
Ontario Council for Leadership in
Educational Administration | Allan Guy
University of Saskatchewan |
| Gary Awkerman
Director, Planning & Management
Charleston County School District | Don Halverson
Accrediting Commission for Schools
Western Association of Schools
and Colleges |
| Frank Banghart
Florida State University | Ann Harrison
Kansas State Department of Education |
| Robert V. Carlson
University of Vermont | Edward H. Humphreys
Ontario Institute for Studies
in Education |
| Charles W. Case
University of Iowa | A.P. Johnston
University of Vermont |
| George Crawford
University of Kansas | Roger Kaufman
Florida State University |
| William G. Cunningham
Old Dominion University | Lloyd MacDonald
Langley School Board |
| Kenneth J. Ducote
Director, Planning
New Orleans Public Schools | Herbert Sheathelm
University of Connecticut |
| Kenneth Evans
Ministry of Education
Western Australia | C. Kenneth Tanner
University of Georgia |
| J. Weldon Greene
Program Development & Planning
District of Columbia Public Schools | Anna M. Vacca
Jefferson County Board of Education |
| | Belle Ruth Witkin
Consultant |

Editor

Robert H. Beach
University of Alabama

Senior Associate Editor

William D. McInerney
Purdue University

Assistant Editor

Shalimar Ramos
Ministry of Education
Caracas, Venezuela

Production Manager

Charlene R. Medeiros

Assistant Editor

Aaron T. Moyana
Zimbabwe African Teachers
Association (ZATA)
Harare, Zimbabwe

Reprints: Articles and reviews are available from the publisher at a cost of \$5 (US) plus postage for orders of less than 25 copies. For sets of 25 copies, the cost is \$25 (US).

Translations: *Educational Planning* will attempt to provide readers with major language translations of journal articles. Interested members should contact the editor regarding availability, costs, lead time, etc.

©COPYRIGHT 1987

International Society for Educational Planning
ALL RIGHTS RESERVED
ISSN 0315-9388

Educational Planning is the refereed journal of the International Society for Educational Planning. *Educational Planning* is published quarterly by the Society which maintains editorial, production, and correspondence offices at The University of Alabama, College of Education, P.O. Box Q, 211 Wilson Hall, Tuscaloosa, Alabama 35487. The Journal is assigned ISSN 0315-9388 by the International Serials Data System/Canada. All material in the Journal is the property of the International Society for Educational Planning and is copyrighted. No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, recording or any information storage or retrieval system without written permission from the publisher. Permission to use material generally will be made available by the editor to students and educational institutions upon request.

EDUCATIONAL PLANNING

VOLUME 6 • SUMMER 1987 • NUMBER 2

Letter from the Editor.....2

ARTICLES

Planning for the Enhancement of Research
Productivity in a College or University
Martha Wingard Tack and Garrett T. Heberlein.....3

Type and Rigor of Staff Evaluation Procedures and
Problematic, Versus Non-problematic Outcomes:
Some Implications for Planners
Patrick A. Terry and George J. Crawford.....18

The Transition Factor in Educational Planning
J. Okpako Enahwo.....30

Educational Planning and Social Forecasting:
The Case of Mexico
Juan Carlos Bruera and Maria Teresa Reboredo.....37

ANNOUNCEMENTS

Invitation to Submit Manuscript.....42

Membership/Subscription.....43

LETTER FROM THE EDITOR

In this issue of the Journal the reader will find a broad diversity of articles in terms of both the focus of interest—elementary/secondary, higher education and national educational policy, to regional location—the U.S., Mexico and Nigeria. Regardless of thrust or geographic origin, each article deals with a slice of educational planning and presents, to varying degrees, a critique of existing practice and prescriptions for improvement. This is perhaps the most appropriate and constructive presentation form for a journal such as *Educational Planning*.

Planning for the development of an institution of higher education in the current environment where faculty research productivity has become, to a great extent, the measure of departmental and individual quality. The issues are well presented by Martha Tack and Garrett Heberlein. Their formulation of a process for increasing productivity will be of interest to those readers with higher education backgrounds.

Patrick Terry and George Crawford also look at process improvement with the presentation of research findings related to staff evaluation procedures. Their findings, that the planning efforts associated with upgrading staff evaluation policy and procedures are worth the effort, should be noted.

J. Enahwo provides us with a perspective on transition (survival) rates in the Nigerian educational system. His findings regarding the ability of states to achieve national transition targets, and the downward drift of the ratios in this most populous African nation should be of deep concern to planners having an international focus.

The problems which beset planning in centralized systems and the difficulties of social forecasting are illustrated by Juan Bruera and Maria Reborado's presentation of their case study from Mexico. Their detailing of the multi-organizational nature of the planning process will strike U.S. readers, unfamiliar with international planning, as somewhat unique.

The next issue of the journal will feature select papers from the 1987 conference of the International Society for Educational Planning in Toronto, Canada. These papers are always of interest and this year promises a better than usual selection.

PLANNING FOR THE ENHANCEMENT OF RESEARCH PRODUCTIVITY IN A COLLEGE OR UNIVERSITY

Involvement in research activities by institutions of higher education is considered by many to be a means of promoting professional currency on the part of faculty, and thus positively affecting the quality of the academic experience for all participants. Consequently, the positive relationship between research and institutional vitality cannot be overemphasized. "Research is an important part of faculty responsibilities and is an integral part of the education of graduate students, and academe is the major producer of basic research discoveries in the United States" (Beasley, et al., 1982, p. 4).

The research completed by colleges and universities is essential to the maintenance of a healthy national and international economy, to the improvement of working conditions, and to the enhancement of the quality of life throughout the globe. Research productivity also contributes to the welfare and prestige of a higher education institution as well as to the greater social good; ". . . much of an institution's reputation is because of the past research productivity of the faculty" (Bean, 1982, p. 13). As a natural consequence, many institutions have decided to make research a premier activity in an effort to enhance the institution's reputation, to attract a better quality faculty as well as student population, and to obtain needed external funding.

The advancement of research productivity should be accomplished using a systematic and planned approach. Basically the following steps, as indicated in Figure 1, should be executed:

1. The institution's board must determine the "fit" of research within the institutional mission.
2. The extent of involvement in research must be identified, e.g., minimal, intermediate, or major; and measurable goals for the research emphasis need to be specified.
3. The services/staff needed to support the institutional research emphasis should be identified, i.e., people and organizational infrastructure; and associated costs should be determined.
4. Institutional funds to support selected research services should be allocated in conjunction with the annual budgetary process.
5. Research services and output should be monitored continuously and evaluated on an on-going basis to identify strengths and weaknesses.

Determination of Research "Fit"

The first step in planning for the enhancement of research is a determination of the "fit" of research within the institutional mission. This "fit" can be identified by analyzing the history of the institution in conjunction with what it aspires to be (and can

Garrett T. Heberlein is Dean of the Graduate School and Vice President for Research at Wayne State University, Detroit, Michigan.

Martha W. Tack is Professor of Educational Administration and Supervision at Bowling Green State University, Bowling Green, Ohio.

realistically achieve) in the future. It should be understood that a college or university does not become a leading research institution overnight or without a major commitment of institutional resources. Thus, board members need to assess accurately the institution's interest and capability in competing successfully in the research arena both during the short- and long-term.

While completing this assessment, it is critical that board members, administrators, and faculty consider the following issues:

1. Increased involvement in research is not a self-supporting proposition. Even the most prestigious institutions must provide substantial internal allocations to support their research effort. In the case of public institutions, some funds for research are often appropriated by the state. As part of this appropriation process, many research institutions, i.e., usually those with large graduate programs, frequently receive higher levels of state support than do other educational institutions. Major private institutions typically rely on substantial endowments as a means of supplementing research funding because federal granting agencies have failed to provide sufficient resources to meet the escalating costs of major research equipment and facilities. Furthermore, trends such as placing restrictions on the percentage of indirect cost that can be charged as well as the unevenness of federal and state funding from year-to-year further exacerbate the problem of relying totally on external funding to support large research programs.
2. Even with monies available to support research efforts, an institution may find it difficult to implement a successful research program. Building research excellence is a complex, expensive, time-consuming, and highly sophisticated activity; there are few, if any, examples of successfully establishing great research institutions overnight. Attempts to accomplish such transformations through massive expenditures of funds in specific disciplines have been moderately successful at only a few institutions. However, such strategies are unrealistic for most universities and colleges because of the massive influx of new dollars that is required.
3. If the research mission represents a change from the status quo, the faculty must be cohesive in their support for the new direction. There also must be a concurrent restructuring of the reward system to accommodate the revised mission. The institution must provide incentives and encouragement to increase research strength and productivity. For example, in terms of external funding, departments should be required to develop discrete targets and goals. Achievement of the goals should then be coupled with significant rewards, e.g., increasing the number of research and teaching assistants. Institutional officials must monitor not only the dollars received but the number of proposals submitted as indications of concentrated involvement in the pursuit of external funding for research projects.
4. Whenever the objective is to increase productivity, it should be coupled with building on existing research strength. The development of research excellence is enhanced when there is already in place a critical mass of productive competence. Typically such areas of excellence, already have a well established graduate program and a modicum of research support. Thus, it is fruitful for institutions to target certain departments and sub-disciplines for research enhancement on a competitive basis. If possible, selected departments should be slated for new research faculty positions.

5. Departments designated for research enhancement must have a clear-cut self-motivation to enhance their research prominence. Bringing new research faculty into departments that do not share a dedication to research excellence usually results in a waste of resources and an unproductive as well as demoralizing outcome for the investigators.

Extent of Involvement in Research

The decision about the involvement in research must be supported by information regarding the current status of research productivity on the campus. "Research productivity . . . is defined as tangible evidence of research or scholarly activities. Research is viewed as the process by which new facts, relationships and understandings of the human and natural world are discovered, identified, explained or derived" (Bean, 1982, p. 5). Thus, data must be amassed about the number of internal dollars currently committed to research; the number of publications by faculty, i.e., books, chapters in books, refereed journal articles, etc.; the number of invited presentations made by principal investigators at national/international conferences; the number of grant proposals submitted and the dollars received in external support for research; the condition of research equipment and facilities; the number of postdoctoral fellows on the campus; the library holdings; the number and types of memberships in prestigious national societies; national rankings of the institution; and the reputation of the faculty as well as graduate programs. Given this information, the board can more accurately assess the resources that will be needed to move the institution forward in the research arena.

It should be acknowledged that an institution does not have to assume an "all or nothing" position in regard to research. There are a number of positions along a continuum ranging from minimal to major commitment in terms of emphasis as well as resource support.

Many institutions choose to make a *minimal commitment* to research and to focus more heavily on teaching and community service. These institutions recognize that conducting research is an expensive and often unaffordable proposition and prefer to allocate their limited resources to instruction and service. At such institutions, there may be skeletal support for research/proposal writing, minimal internal allocations for library acquisitions to support research efforts, and spartan requirements for research productivity when tenure and promotion decisions are made. It should be noted that even if the institution maintains only a minimal commitment to research, there may still be some faculty who conduct modest research projects and publish their findings.

There also is an *intermediate position* with respect to research productivity. An institution in this category typically chooses to conduct research in selected areas and generally has a limited number of faculty who are trained and interested in engaging in research. Internal support for research on an institutional basis is not high, but monies/services to aid in the completion of research are available to faculty in selected disciplines or on a selective basis within disciplines.

The administration of a quasi-limited research program is usually complex because it often requires implementation of a differential reward system within the institution. Such a system can lead to a sense of schizophrenia and confusion on the part of the faculty because different expectations and reward systems may apply to selected departments based on research productivity.

The *major research institution* provides productive research of high quality and sup-

ports the research enterprise with significant internal allocations. This type of institution is also in a good competitive posture to capture external dollars to support research and the dissemination of results. Typically, these institutions fall within the top 100 research universities in the country.

In dealing with the extent of involvement in research, it is essential that clear, measurable goals be established. Examples of goals related to enhanced research productivity are increases in the number of refereed publications, the number of grant proposals submitted, the number of external dollars generated, the number and quality of graduate student applications processed, and the number of postdoctoral fellows. For goals to be achievable, it is important that they be established in concert with faculty, department chairs, deans, and central administrative officials including the graduate dean and vice president for research. Furthermore, goals should be placed in a realistic timeframe, keeping in mind that major progress in research is rarely achieved in a period of less than three years.

Identification of Support Services/Costs

Once the institution's board has identified the level of commitment that it wishes to make to research, planning can be initiated to establish the appropriate base of support for the research effort. At the Atlanta University School of Education, a project was conducted to expand participation of selected faculty in research activities. Achievement of project objectives was facilitated by the fact that "The University administration not only encouraged increased productivity in research but demonstrated support in tangible ways" (*Final Report*, 1983, p. 8). For purposes of this paper, it is assumed that the institution is interested in enhancing its research productivity; thus, the narrative that follows details mechanisms that can be used to support an increased emphasis on research in these two major categories: organization infrastructure and personnel.

Organizational Infrastructure

A number of support mechanisms must be in place to facilitate the completion of research efforts. These mechanisms include appropriate internal funding, policies and procedures to encourage and reward the research effort, and assistance with grants development/management.

Internal Funding for Research

Monies to support research efforts must be available within the institution to interested faculty, and major annual allocations should be made to support research. The actual allocations should be multi-faceted so monies are provided on a competitive basis with the intent being to reinforce and build on strengths. By the same token, some portion of the funds should be assigned for the purpose of helping faculty who desire to become more productive and competitive in the research arena. The task of assuring that the allocation process is handled appropriately rests with the vice president for research or a comparable officer who should continually consult with the college deans and directors about priorities and needs.

There are many incentive programs that can be developed, but the following ideas have been used successfully by a number of institutions:

1. A small grants program (awards of approximately \$1,000 or less) that provides "quick" money to address unanticipated needs of new or older faculty is particularly helpful. Additionally, these monies can be used by researchers who are between grants and need funds to plan other projects. The availability of these monies should be advertised at the beginning of each academic year; criteria should be established; dates for making awards should be identified; and a committee of respected researchers on the campus should be responsible for reviewing proposals and awarding funds. A process for awarding funds on an emergency basis also should be designated.
2. The institutional budget should carry an adequate allocation for graduate research assistants and postdoctoral fellows to support principal investigators. These assistantships/fellowships should be awarded on a competitive basis to departments and/or individual faculty for use solely in the research process. Tickton (1982) noted that a most successful venture to increase research opportunities for young faculty at the University of New Haven (Connecticut) include "a research/teaching assistantship program for graduate students to help faculty members do research" (p. 31). This program is supported with money from the institution's operating fund.
3. The designation of distinguished professorships which carry \$1,000—\$10,000 awards in recognition of high quality research should be considered. Criteria should be established, screening mechanisms developed, and awards made annually. Additionally, endowed research chairs should be actively pursued as a means of attracting high quality researchers and providing them with the appropriate perquisites to conduct their research.
4. The institution should provide travel grants (international and domestic) for faculty and graduate assistants to use in making presentations about their research findings. Such visibility is important to the institution as it seeks to enhance its research reputation. These funds should be administered by an appointed faculty committee or a designated administrative officer; appropriate policies and procedures, of course, must be in place.

It is frequently more productive to award such travel monies on a matching basis. In instances where college, department, and central administrative officials share the same vision, goal/objective achievement is more likely. As a consequence, monies should be made available at various administrative levels to support research. In the administration of internal research dollars, one must remember that decisions should be made as close as possible to the academic unit. While major funds may reside at a centralized level, the allocation of money should be made with an understanding that these will be a cost-sharing commitment by the colleges and departments. Such action encourages colleges to support the research efforts of their faculty, facilitates mutual goal-setting, and makes needed resources available to productive scholars.

5. An institution interested in research should consider providing a pool of funds to encourage cooperative research with industry. For example, such funds should be awarded to faculty who secure matching commitments from industry. This can be an effective way for faculty to increase their contacts with the business world and to develop new sources of research support as well as employment opportunities for graduates of the research programs. For example,

The College of Engineering at the University of California, Berkeley, has

obtained hundreds of thousands of dollars “from major corporations” to develop research opportunities for young faculty members and arranged with industrial donors to offer them consultancies and research contracts. With corporate contributions, young faculty members are provided with summer salaries to initiate research projects. Support is made available to purchase equipment for research. (Tickton, 1982, p. 76)

6. The availability of up-to-date library resources for research is essential. Thus, on an annual basis the institution must allocate funds for use in obtaining needed journals and books. Because of substantial increases in the cost of journals and books during the past five years, the institution should consider developing relationships with nearby organizations (other higher education institutions or research-related agencies). The purpose of these relationships should be to identify the strengths of the collections in various disciplinary fields at the institutions involved. Subsequently, collection development efforts could be focused on specific disciplines at selected institutions, and loan agreements could be developed to facilitate usage by cooperating agencies and colleges/universities.
7. It is important that the institution allocate money for the purchase and maintenance of essential research equipment. Additionally, suitable emphasis must also be placed on the construction, maintenance, and renovation of research facilities and laboratories, with concerted attention given to compliance with federal regulations. Researchers need adequate facilities as well as equipment to investigate various scientific phenomena; Bean (1982) noted that “if faculty members need (or believe that they need) a piece of equipment or set of books in order to do research, they are more likely to produce this research if they have these resources than if they do not” (p. 19).
8. Monies to purchase released time for faculty engaged in research projects must be made available to departments. Thus, the institution should establish a pool of funds to support the wise use of faculty time for research. A centralized pool of funds will indicate the institution’s commitment to research. Moreover, departments with research faculty will have access to funds that can be used in hiring temporary personnel who can provide essential instructional services. The availability of funds for the support of released time also will enhance the involvement of women and minorities in research.
9. Research institutions need to support membership in national organizations focused on research excellence/administration. Several useful organizations are the National Council of University Research Administrators, the Council of Graduate Schools in the United States, the Society of Research Administrators, and the National Association of State Universities and Land-Grant Colleges. These organizations provide information to their members about the most current issues in research and also lobby for increased research funding.
10. Postdoctoral fellows add immeasurably to the research output and image of an institution. Postdoctoral programs, such as the one implemented at Northeastern University in Boston, have underscored the importance of such projects to the success of young women and minority scholars. Golden (1982) reported that “Having time, as well as appropriate resources (e.g., research expenses, computer time) and support staff, was deemed by all involved in the Northeastern University program to be the most promising strategy for increasing the inclusion and recognition of

minority and women educational researchers" (p. 29). Moreover, it has been suggested that postdoctoral fellows' programs may be one vehicle for providing temporary employment to promising young faculty who should be encouraged to consider a career in academia. Postdoctoral fellowships should not be viewed necessarily as an entre into a tenure-track position within an institution. However, it may be appropriate, in certain instances, to consider appointing postdoctoral candidates to faculty positions when they prove to be highly productive as postdoctoral fellows.

Thus, institutional funding for a postdoctoral fellows program should be considered. This funding base should include an adequate salary, research equipment/facilities, fringe benefits equivalent to those provided to full-time faculty, and professional development funds. Additionally, Golden (1982) noted that ". . . for Fellows to function effectively in the host institution, they must be accorded appropriate status and have available the same kinds of opportunities for research productivity offered to permanent, full-time faculty" (p. 23).

11. Most institutions with a heavy involvement in research have reaped considerable benefits from the establishment of institutes and centers. Such units are maintained to provide visibility and to facilitate interdisciplinary research, bringing together scholars from different academic units to research specific issues, i.e., problems in genetic engineering, molecular biology, manufacturing research, toxicology, etc. Such centers typically report to either a college dean or the vice president for research, depending on the level of the interdisciplinary effort. While most centers and institutes derive the majority of their funding from external sources, a substantial resource commitment from the institution may be required during the developmental stages. In institutions with either a minimal or moderate involvement in research, the center approach can be an effective way of avoiding the schizophrenic problems discussed earlier. Participation in center or institute activities may provide some entitlements to productive faculty that are not otherwise possible through departments. The key to promoting successful institutes and centers is to maintain membership on a highly selective basis and to ensure that the research objectives are clearly defined and propagated.

Research-Related Policies and Procedures

The environment in which research is conducted must be as supportive and barrier-free as possible. Thus, the institution must develop appropriate policies/procedures and widely disseminate the information to faculty. The policies and procedures should be designed to facilitate the timely acquisition of resources, to protect the institution and the investigators, and to facilitate free inquiry.

For instance, the institution must have in place policies and procedures regarding issues such as the use of animals and human subjects in research as well as the storage and disposal of biohazards and radioactive substances. Typically, a university-wide committee composed of respected researchers is responsible for the approval of research involving animal and human subjects that is being conducted by faculty or graduate students, for the oversight of hazardous waste storage and disposal, and for monitoring housing as well as treatment of animals used in research efforts. The existence of such a university-wide committee indicates that the institution is executing its ethical responsibilities in regard to the conduct of research and also demonstrates compliance with federal regulations governing university-sponsored research.

The institution can overtly demonstrate its commitment to research through its tenure and promotion policies. Such policies should indicate that the institution has a research expectation and should clearly identify the extent of involvement. "Research emphasis was found to be an important predictor of institutional research productivity . . . This factor could be expected to attract researchers to an institution, and eliminate faculty members who failed to produce research, increasing the likelihood that those who remain are productive researchers" (Bean, 1982, p. 12). Promotion and tenure policies/procedures should be discussed with prospective faculty candidates so there is no misunderstanding regarding the requirement for research productivity. Additionally, administrators should educate departmental faculty about the linkage between research productivity and success at the institution; then, when granting tenure and promotion, they must monitor the process carefully to ensure compliance with approved criteria statements.

Attention must also be given to the development of policies and procedures related to patents, software development, entrepreneurial development, and copyrights. It is essential that investigators understand the institution's position on these issues prior to approaching funding agencies or engaging in research efforts. Additionally, in order to support research and eliminate potential barriers, policies should be in place regarding personnel, purchasing, and grants accounting/reporting. These policies should support the research enterprise by ensuring efficiency and effectiveness.

Sabbatical leaves are excellent mechanisms for encouraging faculty growth and professional development; thus, the institution should, through the development of appropriate policies, encourage the use of sabbatical leaves for research purposes. These leaves might involve postdoctoral study designed to enhance research/statistical skills or actual involvement in a research project at a site where resources are readily available.

A policy on overhead return rates (or indirect cost recovery monies) that encourages grantsmanship should be developed and implemented at the institution. Although the level of return varies considerably from institution to institution, a progressive distribution system might involve the following:

Recipient	Percent of Indirect Cost
Principal investigator	5-10
Department	10-15
College	5-10
Central research support fund	10-15
General fund	50-70

While latitude should be provided in the use of these funds, the intent should be to stimulate further external funding through support of new preliminary research, acquisition of needed equipment, postdoctoral support, travel, etc.

Organizational Structure

Any institution interested in research productivity must demonstrate its commitment to the effort by organizing itself appropriately. This usually entails the designation of a vice-presidential or associate vice-presidential level person with responsibility for research. Additionally, the organizational structure should incorporate a variety of offices designed to provide support services for the research enterprise. Since most in-

stitutions with a major research emphasis also have a commitment to graduate education, there is a growing trend to merge the administrative responsibilities for graduate education and research. Because of the importance of staying abreast of new developments in research and research funding, the vice-president should assume the role of liaison with federal, state, and local governments or should ensure that the institution designates a central person to assume this responsibility.

As part of the support for research, an institution must provide a modern, state-of-the-art computer facility which includes micro- and main-frame hardware. Additionally, faculty and graduate students should have access to the latest software packages for use in the analysis of research data. Moreover, statistical consulting services should be available to interested professionals. A statistical consulting center should be staffed by personnel with acknowledged expertise in the discipline; frequently, statistical services are provided by faculty and graduate students in such departments as mathematics, statistics, or sociology as part of their regular teaching load.

The institution must organize and staff an office that provides services to faculty and graduate students in grants development and administration. Titles vary from institution to institution but frequently include terms such as research services, sponsored programs, or contracts and grants. Given the critical nature of external funding for research, a more in-depth discussion of the services that should be offered to faculty and graduate students as they seek money to support their research programs follows.

Grants Development/Management

Hellweg (1980) noted that "a college needs first to structure itself for grants success. This includes adopting appropriate attitudes toward the process of seeking money from funding agencies, seeing that the proper mechanism is set up within the institution for developing proposals, and for administering funded projects" (p. 5).

The responsibility for providing assistance to faculty and graduate students in the area of grantsmanship should be centralized. For the purpose of this article, grantsmanship is defined as "an organized way of seeking funds from an external source to support a desired activity" (Decker & Decker, 1978, p. 5). Naturally, the operation should be staffed with personnel knowledgeable about proposal preparation and the management of procured funds. In planning for the provision of support services, an institution must recognize the need for a management information system to link faculty with funding agencies, the importance of training in proposal development, and the desirability of follow-through with funding agencies as well as the principal investigator. Additionally, processes must be in place to monitor expenditures and to provide information to the institution's development office.

The first step in grantsmanship is to secure information about the grant opportunities that are available as well as the type and purpose of awards made by various agencies in the past. This information can and should then be shared with faculty through regularly produced internal newsletters containing descriptions of funding possibilities as well as deadline dates for submission of proposals. Such information acquaints faculty with general options that exist for securing external funding for research efforts.

According to Hellweg (1980), "another important function of a grants office in maximizing the information system is the match of faculty competencies and research interests with available grants" (p. 7). Roge and Pion (1983) suggested ". . . that information on outside funding opportunities can be more efficiently and effectively targeted

with a computerized system . . . (p. 18). Thus, the institution should either develop or purchase a computerized management information system to accomplish this task. If the institution does not wish to develop its own system, a number of options for the purchase of commercial systems exist. For example, the SPIN system includes information about funding sources including the federal government, statewide agencies, and private foundations; through the use of key words the system matches research topics with agencies interested in funding inquiry into the specific areas identified. Information is generated immediately via a monitor, and paper copy can be provided to the institution within a few days. Other professionally developed systems include the Stanford University's SCRIPT system, and New York University's FRII system. According to Roge and Pion (1983), ". . . the primary goal of these systems is the improved matching of funding opportunities with the faculty most likely to benefit significantly from such opportunities" (p. 8).

Computerized information systems can be used in other ways to support the research enterprise. For instance, a system in use within the Health Sciences Center at the University of Illinois. Chicago was designed to serve multiple purposes. Specifically the system was developed to:

1. more accurately and effectively target information on external funding opportunities for faculty research and student training;
2. identify groups of faculty with similar interests who may be unaware of nearby colleagues and who may benefit from interdisciplinary research opportunities;
3. locate appropriate faculty to serve on committees dealing with university research policy administration and facilities; and
4. obtain a general sense of faculty usage of major scientific research instrumentation so as to begin a process of long-term planning for equipment acquisition and upgrading. (Roge & Pion, 1983, p. 14)

Armed with information about potential funders for research projects, interested faculty should be encouraged to visit the funding agencies identified. The institution should cover the expense of these exploratory visits which are designed to acquaint the agency with the researcher and the institution; moreover, the researcher should attempt to determine the priorities of the agency in terms of support for research endeavors.

Grants development seminars should be part of the professional development program for all faculty and graduate students, particularly those with limited experience in grant writing. Seminars can be conducted by staff in the research services office, by a respected faculty member with demonstrated success in securing funding, or by national consultants with expertise in the field of proposal preparation.

In addition to regularly scheduled seminars, the institution can purchase video tapes of successful seminars and make these tapes available to faculty on an on-going basis. One such seminar entitled "Winning Grants" was produced by the American Council on Education and presented by David Bower. The seminar consists of 10 55-minute video cassettes which provide information on the following topics: grant writing; pre-proposal contact with funding sources; how to use advocates; how to research the best funding sources in order to increase the success rate to 50% or better on grants written; and follow-up activity, i.e., how to make the funder feel good about having given the institution money.

The combination of seminars, audio-visual programs, and continuing encourage-

ment/assistance from staff members in the research services office should bolster the confidence of faculty in their grant-writing skills and, therefore, increase the number of proposal submissions. Naturally, the institution stands a better chance of enhancing its external funding base with an increase in the number of proposals submitted. During the grant preparation process, editing, typing, and duplication services should be provided; additionally, assistance in budget preparation (especially in the calculation of institutional contributions) should be available. "Finally, the grants office should coordinate the internal approval processes for proposals and transmit the completed product to the funding agency for the faculty or staff member" (Hellweg, 1980, p. 8). Basically, staff in a centralized grants office should assist the principal investigator in any way possible.

Once notification of the granting agency's decision has been received, two alternatives exist. If the monies were not awarded, staff in the grants office or the principal investigator should contact the agency to determine the reasons for denial. Such information will allow the grant writer to improve subsequent submissions either to the same agency or to a different one. Basically, new grant writers need to be reminded constantly that grant funding is rarely obtained on the first submission and that there should be no embarrassment involved in rejection.

Personnel in the grants office need to recognize the psychological and sociological implications for faculty who engage in the solicitation of external funds to support research projects. They should understand that publishing and seeking external funds are difficult, complex, and sometimes emotional tasks for faculty. Faculty must expose their ideas and intimate thoughts to peer review; in doing so, an individual faculty member runs the risk of being told that his/her ideas are not worthwhile. If an institution intends to impose an obligation to obtain external funding for research on faculty with limited grantsmanship experience, there must be support, reinforcement, and sensitivity to the emotional issues involved. Without services and support, morale problems will surface. While "hand-holding" is not commonplace in academia, a great deal of collegial support is needed to encourage faculty to engage in research-related activities, such as the search for external funding. The task of capturing external funding is an art form, requiring considerable experience in terms of how to write effectively and how to approach funding agencies. Faculty should constantly be reminded that they should use rejection to their advantage and as an educational experience.

If the grant is approved, the function of grants management/administration must begin. Typically agencies transmit an approval notice prior to the distribution of monies; at that point, staff should assist the principal investigator in developing an operating budget and establishing an institutional account. Once the notice is received, the institution should immediately allocate start-up funds so the research can be initiated. For instance, up-front budgetary support and approval for the recruitment of personnel may be needed so team members can be in place when the check from the agency arrives. Additionally, the institution should be prepared to deal with occasional deficits generated as a result of the research activity.

An appropriate accounting process must be in place so the investigator will know the status of the account, i.e., how much money has been allocated, how much is left in the account, and how much money has been encumbered for personnel as well as operating expenses. The information generated through the accounting system should conform to NACUBO's (National Association of College and University Business

Officers') accounting standards and must be timely as well as accurate.

In order to assure compliance with university procedures and to aid in the efficient administration of external funds, the institution should consider sponsoring workshops on grants management/administration for principal investigators. In these workshops information should be provided about the principal investigator's fiscal responsibilities as well as the support that can be provided by the institution. Topics such as these should be discussed:

- Personnel forms to be processed for employing staff; salary ranges; dates on which appointments, promotions, salary adjustments can be made; etc.
- Purchasing forms in use, bidding procedures, and timelines involved.
- Equipment maintenance and repair, service contracts, university maintenance, etc.
- Travel regulations.

These workshops should be conducted during the time between notification of the grant award and receipt of the money, thus making effective use of the time available.

Without question, there must be effective coordination and not competition between the institution's development and grants offices. For an institution to be effective, clearly the development office needs to be aware of how frequently and for what purpose faculty are approaching funders. It is critical that there be close cooperation, mutual sharing of responsibility, and recognition for the successful capturing of funds from private sources.

Personnel

In the area of personnel, there are several significant factors to be considered. First, recruitment of research faculty must be given concerted attention; and secondly, mechanisms must be identified to make better use of existing faculty.

In terms of recruitment, the institution must be clear in the advertisement of faculty positions that there is a research expectation and an associated institutional commitment to provide time/resources to accomplish the individual's research agenda. There also should be evidence that the granting of promotions and tenure is tied to research productivity. This information gives prospective candidates a clearer understanding of the position, and the institution is more likely to attract the type of candidate in whom it is interested. It should be noted that if the college or university has a history of being a teaching institution, it will be more difficult to attract preeminent researchers and/or the students of preeminent scholars to the campus. This is true primarily because faculty interested in research are generally attracted first to major research institutions where prestige and institutional history can be helpful in acquiring external funding and where resources are more readily available to, at least initially, support the individual's research program. According to Bean (1982), ". . . faculty who perceive that they are able to conduct publishable research, and who believe that their research positively influences the level of outcomes from their work, are more likely to be productive researchers than if this were not the case" (p. 21).

There must also be a clear understanding that the research is expected to raise money from external sources to support his/her research. Of course, the institution through its infrastructure will need to provide initial support. However, it should be evident that the research faculty member must engage in grantwriting and grants administration as part of his/her responsibilities even though there may be limited sources of external

funding in some disciplines.

Departmental politics also becomes a factor in the recruitment of research faculty. For instance, if less than a majority of a department's faculty is engaged in research, any newly hired faculty member's professional career may be in jeopardy. If this is the situation, the institution must depend on strong leadership from the department chair and dean in terms of the provision of support and the rewards for engaging in scholarly pursuits. As the department grows stronger in terms of its emphasis on research, it will have less difficulty in attracting higher quality, research-oriented faculty.

If an institution does not have a reputation for engaging in research activities, it may initially wish to use major scholars from other institutions as visiting professors and/or institutional advisors. The institution will have to make a convincing argument that it is willing to provide adequate support for research, i.e., equipping a research laboratory, and other benefits such as a shorter tenure track and a higher initial salary. The payoff for such negotiations is that the institution will be able to attract a higher calibre faculty member who can secure external funds as well as serve as an outstanding role model for other faculty and graduate students.

Even institutions with research reputations have some difficulty in attracting established and/or high potential junior researchers to their campus. The best scholars are few in number, and their affiliation with an institution is usually an expensive one. Additionally, there is pressure to increase the percentage of minority and women researchers, which adds difficulties to the recruitment process in terms of packages that will allow the institution to be competitive in terms of initial employment.

The recruitment of research faculty must be accomplished through a combination of advertising, personal contact, and hard work. Of course, advertisements and announcements must be placed "in scholarly and professional publications and letters and announcements mailed to targeted individuals, organizations, and academic institutions" (Carter, 1980, p. 10). However, simply advertising the position is rarely effective in capturing the most promising research faculty candidates. Thus, the department chair and the department's/college's best (and most widely known) researchers must become personally involved in the recruitment process. Many departments are also relying on academic consultants for assistance in identifying and communicating with outstanding researchers in a specific field. It is evident that networking still plays a major role in recruiting the best research faculty, a fact that young research institutions need to recognize because they are less likely to have established such networks.

Budgetary Allocations

Funds to support research ultimately will be allocated through a variety of mechanisms including accounts assigned directly to the vice president for research, accounts to the office of the graduate school/college dean, accounts to college deans, accounts to research institutes as well as centers, and accounts to departments. While these funds may be disseminated on a variety of levels, the centrality of purpose must be understood. The assurance of this understanding rests with the central research officer who should be clearly aware of the institution's commitment to research productivity. To accomplish this objective, the central research administrator should be an active participant in the budget hearing process and should have a major role in the total budgetary process. This necessitates, of course, that he/she be adequately briefed on research productivity and potential for research excellence within the institution since ultimately priorities must

be established at the central level. This involvement on the part of the research administrator, if separate from the provost, must be completed with the support of the provost and ultimately the president in order to be effective. By the same token, in order to encourage continuing research success, it is important that the chief research officer or graduate dean have input into tenure, promotion, and salary increment decisions within the institution.

Evaluation

It is recommended that the research productivity of all academic units be compiled and examined annually and that these data be used to set and revise new targets as well as objectives for the next few years. Departments should be expected to explain and provide rationale for their achievement or failure to achieve established objectives.

In addition, a more comprehensive review of departmental research productivity, research facilities, graduate offerings, and affiliated undergraduate programs should be accomplished on a five-year cycle. In the five-year review process candor must be maintained, and external evaluators (who are recognized as research leaders in their respective fields) should be used. Whenever possible, these reviews should be coupled with the accrediting process to minimize excessive paperwork and unnecessary repetition. Both the chief research administrative officer and the graduate dean should have major responsibility in these review processes. On the basis of such five-year reviews, major trends in disciplinary areas and new opportunities for interdisciplinary research will surface and should be addressed for possible inclusion in the institution's research thrust.

To be effective, these reviews should be more than paper processes. Results of the reviews should be used in the institution's strategic planning process which must consider changes in research thrusts, graduate education, and the research mission in general.

While the authors of this article have emphasized growth and development in research, true growth cannot occur without the paring and elimination of weak, mediocre programs. Such programs serve not only to undermine the reputation of the institution but deprive the organization of the ability to use its resources in an appropriate manner. To be productive in the research arena, there must be an understanding that the institution will constantly consider new research opportunities; concurrently, there must be an understanding that research structures which have fulfilled their purpose will be terminated to allow the allocation of funds to new ventures. A clear distinction between institutions with a history of success and those that are less successful is their structure and ability to make tough decisions.

Summary

While not all institutions will make the same commitment to a research program, the support of free inquiry is a thread that runs through the fabric of higher education. Although engaging in research is an exciting and prestigious venture, it is not an inexpensive proposition in terms of resources and time. It is important that each institution carefully consider the "fit" of research within its mission and the extent to which it wishes to be involved in research activities. Support services then can be provided, institutional funding can be allocated and research output can be evaluated according to systematically developed and approved plans.

In the development of plans, faculty, trustees, and administrators must be involved

and overtly supportive of the research venture. Naturally, all members of the institution must have a clear understanding of the institution's research expectations, must be motivated to meet the goals established, and must be confident that institutional support will be forthcoming. With plans, personnel, and organizational infrastructures in place for engaging in or enhancing research productivity, the potential for success in the research arena is high.

REFERENCES

- Bean, J. P. (1982). *A causal model of faculty research productivity*. New York: American Educational Research Association. (ERIC Document Reproduction Service No. ED 216 661)
- Beasley, K. L., Dingerson, M. R., Hensley, O. D., Hess, L. G., & Rodman, J. A. (1982). *The administration of sponsored programs*. San Francisco: Jossey-Bass.
- Carter, H. M. et al. (1980). *Using existing research centers: A model for increasing the participation of minority persons and women in research on education*. Boston: American Educational Research Association. (ERIC Document Reproduction Service No. ED 190 669)
- Decker, V. A., & Decker, L. E. (1978). *The funding process: Grantsmanship and proposal development*. Charlottesville, VA: Community College Collaborators. (ERIC Document Reproduction Service No. ED 155 785)
- Final report on a program to expand research participation of faculty and students at the Atlanta University Center sponsored by the National Institute of Education minorities' and women's programs*. (1983). Atlanta, GA: The Atlanta University Graduate School of Education. (ERIC Document Reproduction Service No. ED 240 963)
- Golden, M. P., et al. (1982). *Postdoctoral faculty fellowship Program. Final Report*. Boston: Northeastern University. (ERIC Document Reproduction Service No. ED 232 539)
- Hellweg, S. A. (1980). Requisites for an effective college grants development operation. *Community College Review*, 8 (2), 5-12.
- Roge, J., & Pion, G. (1983). *Characteristics of and strategies for information systems on faculty resources: A case study*. Toronto, Ontario: Association of Institutional research. (ERIC Document Reproduction Service No. ED 232 595)
- Tickton, S. G., et al. (1982). *1982 idea handbook: Attracting and retaining high quality young faculty members at colleges and universities, a compendium of innovative approaches. Practical ideas and notable programs*. Washington, DC: Academy for Educational Development, Inc. (ERIC Document Reproduction Service No. ED 223 134)

TYPE AND RIGOR OF STAFF EVALUATION PROCEDURES AND PROBLEMATIC, VERSUS NON-PROBLEMATIC OUTCOMES: SOME IMPLICATIONS FOR PLANNERS

Teacher evaluation instruments and procedures may be reliably and validly classified as to type—ranging from traditional to contemporary—and rigor—ranging from less rigorous to more rigorous. Furthermore, school districts whose evaluators rigorously apply more contemporary evaluation procedures experience teacher requests for due process hearings in significantly-smaller numbers than their more traditional, less rigorous counterparts (Terry, 1984).

Safeguarding due process rights of employees is defensible and desirable on legal, ethical and moral grounds. It is clear, however, that these crucial employee rights are balanced by students' and school patrons' rights to expect competent instruction and responsible expenditure of school funds. Incompetent instruction and wasteful, needless expenditures are to be avoided.

Due process procedures are complicated, involved and expensive. In addition to fees for legal representation, the costs of providing an impartial hearing are extensive. According to the state's Association of School Boards the cost of a typical due process hearing in Kansas has been estimated at eight to nine thousand dollars. Appeals to district courts have inflated this figure in rare cases to as much as forty thousand dollars. If certain types of evaluation systems and approaches to evaluation significantly reduce the incidences of retaining incompetent teachers and avoidable expenditure, it would be to the advantage of educational planners to be well-informed on these characteristics and approaches.

This paper describes the methods by which teacher evaluation procedures may be evaluated relative to their type and rigor. Empirical evidence of the significantly-lower incidence rate of due process hearings in districts using contemporary, rigorous evaluation systems and processes is described and discussed. Practical implications are drawn concerning what educational planners can do to minimize their districts' vulnerability to costly, protracted, and possibly-avoidable due process hearings and attendant legal proceedings. Brief overviews of representative legal foundations of due process and the background of due process in Kansas—the site of the research reported—are also included.

Legal Foundations of Due Process

At the Federal Level

Due process rights of teachers were specifically addressed in two 1972 opinions of the Supreme Court of the United States. In *Board of Regents of State Colleges v. Roth* (408 U.S. 564) and *Perry v. Sindermann* (408 U.S. 593) the court indicated that a public employee has certain property or liberty rights which are protected by the 14th Amendment to the Constitution of the United States.

The property interests of employees were adjudicated in *Perry v. Sindermann*. *Sinder-*

Patrick A. Terry is Superintendent of Schools, Norton, Kansas.

George Crawford is Professor of Policy Studies and Administration at the University of Kansas, Lawrence Kansas.

mann was a political science instructor in the state college system of Texas from 1959–1969. From 1965–1969 he was employed on a series of one year contracts at a junior college. In May of 1969 he was informed that his one year contract would not be renewed for the next academic year.

The Supreme Court held that property interests could be found in state law, or in unwritten common law within a particular school or college. Individuals dismissed during the term of their contract or having reasonable expectation of retaining their position are entitled to due process prior to abrogation of such interests.

Liberty interests of public employees are clarified by the Supreme Court's ruling in *Board of Regents v. Roth*. The court declared that state action which stigmatizes and prevents an employee from finding comparable employment infringes upon liberty interests. Thus, if a person's reputation, good name or integrity were questioned because of the action taken by government then notice and opportunity to be heard must be granted. Due process procedures, therefore, must be followed when a governmental entity gives reasons for nonrenewal which diminish the individual's reputation or employment prospects.

In Kansas

Due process rights for Kansas teachers are defined in Kansas Statutes Annotated (K.S.A.) which were originally adopted in 1974. Various sections have been amended in subsequent legislative sessions. During its 1981 session the Kansas Legislature made clear its intent with regard to the desired relationship between evaluation and teacher employment decisions. K.S.A. 72-9004 prohibits dismissal of any teacher for incompetence absent a written evaluation in substantial compliance with state law and board of education policies.

A board of education which terminates a teaching contract before it has been completed or nonrenews the contract of a teacher with more than three consecutive years* of employment in the district has a statutory obligation to provide a due process hearing. The board must give the affected teacher written notice including a statement of reasons for nonrenewal or termination and informing the teacher of the right to request a hearing by committee.

The teacher requests a due process hearing by notifying the clerk of the board and designating one hearing committee member. The board of education then designates its appointee to the committee. The two appointed hearing committee members either agree upon a third member to chair the committee or request a district judge to make the selection.

Both sides may be and usually are represented by an attorney. The hearing normally is transcribed with the costs being shared by the parties. The committee must render a written recommendation setting forth findings of fact and recommendations as to the determination of the issues. The board of education must then meet to consider the committee's recommendations, hear oral (or receive written) arguments from each side and either accept a unanimous committee decision or decide whether the teacher's contract shall be renewed or terminated if the committee decision is not unanimous.

* The time limit is two years for all teachers tenured prior to July 1, 1984

More Generally

By 1980, twenty-eight states and the District of Columbia had legislated requirements for a teacher appraisal system (Beckham, 1981). Many authors note the importance of a formal evaluation system as a component of the personnel decision-making process. Redfern (1980) recognizes that boards of education may insist on having an evaluation system which provides many types of management information, including improvement of instruction, validating the selection process and providing steps for termination.

Kimball (1980) maintains that establishment of an evaluation system is motivated almost always by a concern for improvement in the quality of instruction and as a basis for providing information on retention or dismissal of teachers. Castetter (1976) notes that evaluation is an important process involving the review and assessment of information which is gathered relative to the ineffective performance of a teacher.

A 1983 study by Wuhs and Manatt revealed that twelve states included evaluation as part of the due process procedures that must be followed prior to dismissal. Ten of these twelve states cite the need for improvement as a conjunct reason for conducting evaluation.

Minimal due process requires that individuals be informed of the charges against them and be given an opportunity to be heard before an impartial body prior to being denied liberty or property rights. The degree to which these requirements are extended requires a balancing of the interest of the school board in expeditious removal of an inefficient or ineffective employee against the individual's property or liberty interests with proper consideration given to the permanence or seriousness of the proposed loss (Beckham, 1981).

Conceptual Framework

Evaluation system type and evaluation system rigor constitute two primary characteristics or dimensions of evaluation systems that may vary in ways critically related to evaluation outcomes—particularly those outcomes related to due process proceedings. These two dimensions, evaluation system type and evaluation system rigor, were designated independent variables to be used in classifying each of the Kansas public school districts terminating or nonrenewing the contract of a tenured teacher during the 1982–83 academic year. The dependent variable was due process hearing outcome, that is, hearing or nonhearing.

Castetter (1976, p. 233) describes two types of appraisal systems: 1) Traditional or conventional, and 2) Contemporary. Traditional procedures include ranking, grading, scaling, checklists and rating scales. Castetter maintains that a half century of research has found each of these traditional methods deficient in some way. Contemporary appraisal systems, on the other hand, attempt to facilitate change in individual behavior for achievement of personal and organizational goals. They necessitate superior and subordinate participation in setting performance expectations with emphasis placed on obtaining factual information about achievements related to expectations. In addition, a contemporary system requires interaction between evaluator and evaluatee to discuss strengths and weaknesses and make progress judgements for future goal setting.

Abundant evidence supports the assertion that evaluators differ with respect to such things as the amount and quality of time devoted to evaluation and the precision and consistency with which techniques are applied. Evaluators who spend comparatively larger amounts of high quality time in their evaluation activities and who, moreover,

use more sophisticated, refined and better informed evaluation techniques should be recognizable and capable of being quantitatively distinguished from their less rigorous colleagues.

Given the possibility of classifying teacher evaluation systems as to type (traditional or contemporary) and the probable ability to quantitatively compare the amount of rigor various evaluators apply in their evaluation efforts, it was deemed interesting and potentially valuable to determine how the variables type and rigor relate to the incidence rate of due process hearings. The discovery of systematic relationships would have useful implications for planning and implementing evaluation systems.

This thinking led to the following hypotheses and questions.

Research Hypotheses and Questions

- H₁: Districts which nonrenew the contracts of tenured teachers and do not receive a due process hearing request will employ contemporary evaluation methods with greater frequency than districts which nonrenew the contracts of tenured teachers and do receive a due process hearing request.
- H₂: Primary evaluators of nonrenewed tenured teachers who did not request a due process hearing will score significantly higher on the measure "rigor of the evaluation process" than will primary evaluators of nonrenewed tenured teachers who did request a due process hearing.

In light of additional research objectives related to the reasons given by districts for nonrenewal and to identifying administrators' perceptions of representative motivations of teachers to seek or not seek due process hearings, the following questions were asked.

- Q₁: What are the formal reasons listed in notices to teachers that their teaching contracts are being nonrenewed?
- Q₂: What are the primary explanations given by administrators involved in the nonrenewal of teaching contracts as to why the affected teacher did or did not request a due process hearing?

Research Procedures

Pilot Phase: Rigor of Evaluation

A pilot study was conducted to develop an instrument designed to quantify the variable, rigor of evaluation process. The initial step entailed sending a letter to twenty-eight randomly chosen Kansas principals. The principals were provided a proposed definition of rigor: "Rigor of evaluation is defined as the extent of thoroughness and precision employed by the evaluator in the appraisal of teaching performance." The selected principals were asked to list components which they felt contributed to a rigorous evaluation process. Eleven useable replies were received. The pilot instrument for quantifying rigor included elements provided by the randomly selected principals' group along with others selected from a literature review. The resulting instrument* was field tested in the spring of 1983 to derive estimates of validity and reliability.

* Available from the second author

Two pilot districts were identified. The first had six individuals with evaluation responsibility and the second had thirteen. The two pilot superintendents were asked to rank their evaluators from most rigorous to least rigorous according to the operational definition. The individual employing the most thorough and precise approaches to evaluation was ranked first by the superintendent and other evaluators were ranked second, third, and so on, according to their superintendent's perception of the relative amounts of rigor employed in evaluation. Face to face interviews were conducted with the persons who were objects of the superintendents' rankings of evaluation rigor. These interviews employed the pilot version of the rigor instrument. The interview results were quantified to provide an estimate of evaluation rigor based on the evaluators' own descriptions. Following the interviews with each of the 18 evaluators in the pilot districts they were asked to make suggestions on additions to the instrument and to judge the validity of the pilot instrument.

In the first pilot district three suggestions on additions to the instrument were made. Following the inclusion of their suggestions those six respondents judged the instrument to have content validity. In the second pilot district 12 of the 13 participants judged the instrument to have content validity. The other respondent stated the belief that such a measure was invalid, but provided no reason for the belief.

In an attempt to establish construct validity of the rigor instrument the rankings of the superintendents were correlated with the ranked scores achieved by the evaluators on the instrument. Spearman's rank difference correlation coefficient was computed independently for the two pilot groups.

In the first group of six evaluators, the coefficient obtained was $r = .88$. With four degrees of freedom the Spearman r requires a coefficient of $+/- 1.00$ to be significant. For the first group, therefore, a claim of a statistically significant relationship between superintendent's ranking and respondents' self-descriptions could not be sustained.

In the second pilot group of twelve evaluators the coefficient obtained was $r = .62$. This result is statistically significant at the .05 level of probability.

The instrument was determined to have content validity based on the judgement of 18 of 19 respondents' reviews. The empirical results were mixed, inasmuch as the low number of subjects in pilot group one required perfect correlation between superintendent's ranking and evaluator score for significance. The result for group two, however, was significant.

Reliability of the "Rigor..." instrument was estimated using a test-retest method. The 18 participating evaluators in the two pilot districts were re-tested at a three week interval and a Pearson product moment correlation was calculated. The resulting Pearson r was .918 ($df = 16$, $p = .01$). The instrument was judged to be reliable.

Sampling Procedure

In November, 1983, the Kansas Association of School Boards (KASB) provided access to the Association's 1983 surveys of district responses on teacher disemployment. Replies were received from 279 of the 305 districts eligible to respond. This represented a 91.4 percent rate of return.

The surveys were reviewed and a list of 33 districts was developed to reflect those which had nonrenewed teachers during the year. These districts had nonrenewed a total of 43 tenured teachers. Fourteen of these teachers requested due process hearings while 29 did not.

Eight of the 11 districts (73%) which received teachers' requests for hearings agreed to participate in the research. These eight participating districts accounted for ten teachers who requested due process hearings.

Fourteen of 22 districts (64%) which did not receive a due process hearing request agreed to participate. These 14 districts represented 18 teachers who did not request a due process hearing.

All eight of the "hearing" districts were included in the study. Data were collected from these districts involving ten nonrenewals. A random sample of ten of the 14 nonhearing districts was included. These districts also accounted for a total of ten nonrenewals.

Classification of Evaluation System as to Type

The type of evaluation system was determined on a district by district basis, using Castetter's dual classification scheme as a design. Evaluation systems were classified as traditional if the major focus of policy and form was upon rating of the evaluatee by a comparative or absolute standards method. Evaluation systems were classified as contemporary if the major focus of policy and form was upon individual and organizational change through cooperatively set goals, objectives, or performance expectations between evaluator and evaluatee.

The classification of each of the sample district's evaluation systems was determined by the judgement of three practicing superintendents. The individuals selected as judges had a combined total of 81 years' experience in public school teaching, university teaching, evaluation of personnel, and school administration. A one-hour training session was conducted with each judge using five evaluation policies, none of which was a part of the sample. An evaluation system was classified as traditional or contemporary according to the category assigned by a majority (2) of the judges.

Following training the three judges were asked to classify the evaluation systems of the sample districts as to type. As an estimate of the reliability of their classifications the three judges were asked to reclassify the sample systems after a two-week interval. Their second classifications were compared with the initial ones and the percentage of same classifications calculated. Two of the judges classified 95 percent of the systems in the same manner. One judge classified 100 percent of the appraisal systems in the same way on the second trial. The reliability of the three judges' ability to classify evaluation systems as to type, according to the operational definition, was deemed adequate.

Findings

Type of Evaluation System

Table 1 reports the classifications of the evaluation systems assigned by the judges to the hearing and nonhearing districts.

TABLE 1
METHODS OF EVALUATION EMPLOYED BY HEARING
AND NONHEARING DISTRICTS, 1982-83

Outcome of Nonrenewal	Evaluation System Type		Total
	Traditional	Contemporary	
Hearing	8	2	10
Nonhearing	4	6	10
Total	12	8	

Of the ten sample districts which did not receive a request for a due process hearing, six had policies classified as contemporary and four were traditional. Two hearing districts employed contemporary appraisal systems while eight were classified as traditional. The Fisher Exact Probability Test was applied. According to the Fisher test the probability of obtaining the frequencies observed in Table 1 is equal to .0848.

Rigor of Evaluation Processes

Rigor of the evaluation processes employed was evaluated by comparing scores of evaluators in hearing and nonhearing districts on the Rigor instrument. Scores of evaluators in nonhearing districts ranged from 17 to 27 with the mean equal to 22.3. Scores of evaluators in the hearing districts ranged from 8 to 24 with the mean equal to 14.3.

A t-test was used to determine whether the means of the primary evaluators differed with respect to rigor between the hearing and nonhearing samples. The obtained value ($t=3.60$, $df=18$, $p=.001$) was significant.

Research Questions

The first research question asked the superintendents in both sample groups to state the formal reasons given to tenured teachers in the notice of nonrenewal. K.S.A. 72-5438 requires boards of education to provide written notice of intention to nonrenew a tenured teacher's contract. The written notice must include a statement of the reasons for the proposed nonrenewal.

The written notice must be adopted by the board of education, usually in the form of a resolution. Adoption of a resolution requires a vote by the board in open session. Thus, the notice to the teacher is part of the public record as reflected in the minutes of the board of education.

Some of the reasons given were general in nature, such as insubordination or reduction in force. Other districts attempted to be very specific in the detail provided by the notice of intent to nonrenew. The reasons have been classified under general categories. Table 2 presents the reasons given and frequency of response from districts which nonrenewed the contract of a tenured teacher during 1982-83.

TABLE 2
FORMAL REASONS GIVEN BY BOARD OF EDUCATION
TO NONRENEWED TENURED TEACHERS

Reason	No Request for Hearing	Hearing Requested	Total
Reduction in Force	7	4	11
Insubordination	1	5	6
Violation of Board Policy	3	2	5
Lack of Student Discipline	0	4	4
Incompetence	1	2	3
Leaving Students Unsupervised	1	2	3
Unprofessional Conduct	0	3	3
Failure to be Properly Certified	0	1	1

In 55 percent of the sample cases reduction in force was cited as at-least one of the reasons given by boards of education for the nonrenewal of a tenured teacher's contract. Insubordination, violation of board policy and lack of student discipline were the next most frequently listed reasons.

Superintendents and primary evaluators were asked to respond to the second research question which invited them to speculate about possible explanations for nonrenewed teachers' tendencies to request or not request a hearing. Four of the respondents were unwilling to give a reason, but 36 gave from one to three reasons.

Table 3 displays the reasons and frequencies of response the administrators in non-hearing districts gave as to why teachers did not seek a hearing. Table 4 reflects opinions of administrators in hearing districts as to why teachers *did* seek a due process hearing.

TABLE 3
OPINIONS OF ADMINISTRATORS AS TO WHY AFFECTED TEACHERS
DID NOT REQUEST A DUE PROCESS HEARING

Reason	Superintendents	Primary Evaluators	Total
Hearing would not affect outcome	4	3	7
Teacher believed action justified	3	3	6
Don't know	0	3	3
Enrollment necessitated reduction	2	1	3
Strength of documentation	1	2	3
Gained other employment	1	1	2
Desired unemployment compensation	0	1	1

TABLE 4
OPINIONS OF ADMINISTRATORS AS TO WHY AFFECTED TEACHERS
DID REQUEST A DUE PROCESS HEARING

Reason	Superin- tendents	Primary Evaluators	Total
Believed unfairly treated	4	1	5
Questioned validity of evaluations	1	4	5
Financial gain	2	1	3
KNEA advice	2	1	3
Administrator recommended renewal	0	2	2
Lack of support from KNEA	1	0	1
Don't know	0	1	1

A wide range of reasons was given by administrators as to why affected teachers did or did not seek a due process hearing. Nonhearing district respondents' most frequently expressed opinion was that teachers either believed that a hearing would not affect the ultimate outcome or that the job action was justified. A belief of the administrators that teachers perceived they had been treated unfairly or questioned the validity of evaluation processes were the two most frequently cited opinions of respondents in the hearing districts. This finding is consistent with conclusions drawn by Dipboye and dePontbriand (1981) and Greller (1975).

Implications for Practice

The type of evaluation system employed by a school district has a high probability of being causally related to the incidence of due process hearing requests from tenured teachers whose contracts are nonrenewed. Although the statistical significance resulting from an evaluation of incidence rate of hearings experienced by districts using contemporary, as compared with traditional evaluation systems did not meet or exceed an a priori probability of .05*, the result of the comparison ($p = .0848$) *does* have practical significance. Given an unadjusted probability of approximately 91 percent that efforts to plan more contemporary approaches to evaluation will result in less problematic (more effective) evaluation outcomes in cases of termination or nonrenewal, planners are advised to make the efforts essential to modernizing their district's evaluation procedures.

Primary evaluators of teachers who did not request hearing scored significantly higher on a measure of evaluation rigor than did evaluators of teachers requesting hearings. The five areas in which the two groups of evaluators differed most in rigor were those related to length of formal conferences prior to evaluation, length of formal conferences following observations, number of formal observations, number of informal observations, and the number of informal conferences throughout the evaluation process.

Evaluator behaviors which focus on spending time in formal and informal discussion of performance with evaluatees and which result in robust numbers of evaluation obser-

* Unless Tocher's (Siegel, 1956) modification is applied, in which case the result is significant.

vations are associated with decreased incidences of due process hearing requests. These results suggest that administrators may decrease the probability of a due process hearing request following a recommendation for contract termination or nonrenewal by increasing and/or maintaining a high frequency of classroom observations and by spending ample amounts of time in discussion of concerns with the problem employee. School district planners could help evaluators increase the rigor of their evaluation processes by devising procedures and instruments by means of which evaluators could appraise the rigor of their evaluation behavior and by planning in-service experiences for helping evaluators improve the effective rigor of their evaluation practices.

Another implication may be cautiously drawn for planners and evaluators from the finding that the state teachers' association (KNEA) was listed infrequently by administrators as a reason for nonrenewed teachers seeking a due process hearing. A common perception exists among many administrators and board members that due process hearings are an almost-automatic product of nonrenewals due to the influence of teachers' organizations. The opinions of the respondents in this research suggest that locally controllable factors such as the quality of evidence of treatment afforded a nonrenewed teacher are more likely to influence whether the teacher requests a hearing. To the extent that this perception represents conditions that are real and generalizable to other states, planners and evaluators might benefit from restructuring their attitudes toward the intentions and roles of teachers' associations and unions.

An additional finding of this study not previously described may have practical implications for planners, evaluators and other researchers. In Kansas the contracts of 45 tenured teachers were terminated or nonrenewed during 1982-83. That number represents 52 percent of the total number of tenured teachers who were involuntarily separated from their positions for that year. The complete data set on *reported* (see Table 5) involuntary separation of teachers from their positions for the year—including nontenured teachers—totaled 320 teachers. This figure represents approximately one percent of the full-time equivalent certified teachers in the state (13,065). Table 5 shows the incidence of teacher disemployment by category, i.e., nonrenewed, terminated (fired) or resigned, and the result of that action (in the first two cases) with respect to a hearing.

Tentative implications and suggestions to be drawn from these data include examples of the following kinds. First, popularizers of a point of view which suggests that at least some of the alleged difficulties of public education are attributable to administrators' failure to take action to separate incompetent teachers from teaching are apparently misinformed. The Kansas data suggest that procedures exist by means of which teachers judged incapable of meeting minimum performance standards may be involuntarily separated from their positions. This is an obviously-incomplete picture, however. These data do not, for example, reveal the extent to which teachers involuntarily separated from positions may reenter positions in other districts. Furthermore, reduction in force was cited as the reason for nonrenewal in seven nonhearing districts. In the hearing districts, reduction in force was the sole reason given in only two cases. It is possible that reduction in force cases are more objective, and consequently easier to sustain than cases brought for reasons that bear on the performance or personal attributes of the teacher. Additional information must be gathered to gain a clear perspective on these questions.

This and related lines of inquiry might be extended in ways that would prove useful to evaluation planners and implementers. For example, Table 5 reveals that a total of 152 Kansas teachers resigned during 1982-83 when informed of the intent to terminate or nonrenew

TABLE 5
INCIDENCE OF TEACHER DISEMPLOYMENT FROM KANSAS
SCHOOL DISTRICT BY CATEGORY: 1982-83

		Teachers			Total
		Nonrenewed	Terminated	Resigned#	
Tenured	Hearing	14	1	37	82
	Nonhearing	29	1		
Nontenured	Hearing	2	0	115	238
	Nonhearing	113	8		
Total		158	10	152	320

* Survey data from 279 of 305 unified school districts

Individual resigned when told of intent to nonrenew

their contracts. Thirty-seven of these teachers, approximately 24.3 percent, were tenured. An investigation of evaluation system type and evaluation rigor in districts receiving teacher resignations in lieu of involuntary termination or nonrenewal would inform researchers, planners and evaluators about characteristics of evaluation systems and processes that may be related to resignation in ways comparable to those operating in cases of involuntary termination and nonrenewal. If similar characteristics *are* identified in future studies, implications for planners of evaluation systems and processes are apparent. Whether the relationships involved for resignation are similar to those discovered in this study remains to be seen. The value of the potential knowledge gained seems to serve as sufficient justification to recommend that further investigations along these avenues be carried out.

This study has provided frequency data and some empirical evidence about relationships between characteristics of evaluation systems and processes and the incidence of due process in Kansas. The fund of useful information to be mined from this area of inquiry obviously has not been exhausted. Further refinement of the "Rigor . . ." instrument is advised. Knowledge of the psychometric properties of the instrument could be significantly enhanced by further field testing. More definitive information concerning the construct validity of the instrument is warranted. In the meantime, beginnings have been made which may be useful to interested practitioners and researchers.

REFERENCES

Books

- Beckham, J., 1981. *Legal aspects of teacher evaluation*. Topeka, Kansas: National Organization on Legal Problems of Education.
- Castetter, W. B., 1976. *The personnel function in educational administration (2nd ed.)*. New York: Macmillan.
- Redfern, G., 1980. *Evaluating teachers and administrators: A performance objectives approach*. Boulder, Colorado: Westview Press.
- Siegel, S., 1956. *Nonparametric statistics for the behavioral sciences*. New York: McGraw-Hill.

Periodicals

- Dipboye, R. L., & dePontbriand, R., 1981. Correlates of employee reactions to performance appraisals and appraisal systems. *Journal of Applied Psychology*, 66, 248-251.
- Greller, M. M., 1975. Subordinate participation and reactions to the appraisal interview. *Journal of Applied Psychology*, 70, 28.
- Kimball, R. T., 1980. Six approaches to evaluating teaching: A typology. *NASSP Bulletin*, 34, 41-44.
- Wuhs, W. K., & Manatt, R. P., 1983. The pace of mandated teacher evaluation picks up. *The American School Board Journal*. 70, 28.

Case Citations

- Board of Regents of State Colleges v. Roth, 1972. *Supreme Court of the United States*, 408 U.S. 564, 92 S. Ct. 2701, 33 L. Ed. 2d 548.
- Perry v. Sindermann*, 1972. *Supreme Court of the United States*, 408 U.S. 593, 92 S. Ct. 269, 33 L. Ed. 2d. 570.

Other

- Terry, P. A., 1984. Type and rigor of Kansas school district evaluation systems and incidence of due process hearings. *Unpublished Doctoral Dissertation. University of Kansas.*

THE TRANSITION FACTOR IN EDUCATIONAL PLANNING

The need for this paper arose from the concern expressed recently by the Federal Government on the low transition ratios into the three-year junior secondary school segment of the new 6-3-3-4 educational system. Presenting the working papers on planning to the meeting of the Joint Consultative Committee on Education reference committee on planning in Owerri in April, 1985, the Federal Ministry of Education, in co-operation with a group of UNESCO consultants, revealed that transition rates into the second level of the new educational programme had fallen below expectation (Federal Ministry of Education, 1985a). Apart from functional literacy rates, transition ratios provide a firm indicator of the success of the actualisation process in educational planning. To a considerable extent, levels of transition or percentage levels of progress from one grade to another, are a litmus test of educational development, especially when taken in conjunction with rates of success, turnover and renewal in the systems.

The concern of the federal Government cannot be taken lightly when it is realised that the junior secondary school is meant to provide the foundation on which the more specialist work of the senior secondary school is based. This being the case, we cannot afford a weak foundation; any malfunction noticed at these early stages must be nipped in the bud. This is necessary so that the 6-3-3-4 system does not become another Universal Primary Education experience, where problems became so endemic that officials only succeeded in extricating themselves from the consequences of their actions by passing the buck. We need to determine the transition trends in the various states to show whether some areas need further encouragement. Also we must, consider some of the conventional factors responsible for low transition and see whether we can effectively address these issues in order to ensure a better future for the success of the senior secondary school.

Literature Review

Writing on the projection of voluntary enrolments at the secondary level under the social demand approach to educational planning, Sheehan (1973, p. 28) described transition ratio as "The proportion of those who complete a cycle of education, who proceed to the subsequent cycle $n + 1$ ". As applied to secondary school grades in Nigeria, transition ratio refers to the percentage of pupils completing a particular class (for instances form two) who are able to proceed to the next class, such as form three.

As a result, transition ratios are a function of two powerful variables, the enrolment rates and the wastage or dropout rates among the pupils in question. Thus a high enrolment rate is meaningless if it is coupled with a high rate of wastage at the end of the school year. This is so because such trends are symptomatic of low transition ratios, leading to wastage of money, time and efforts on those who are unable to remain in school for one reason or the other. To cut down cost on all three elements, countries have had to encourage high transition ratios by planning to eliminate or reduce the impact of factors which foster pupil wastage.

It is necessary to have a clear perception of wastage when we talk of transition rates in secondary schools. Describing wastage as the product of dropout, failure and repetition, Ejieh (1984) found that the immediate factors responsible for high turnover rates among secondary school pupils in Anambra State were failure in examination, cancellation of General Certificate of Education examination and the ease with which pupils changed schools. Although some of these factors were held accountable for the high repetition and dropout rates of 27.8% and 26.98% in Anambra State, respectively, a question unanswered was, why the high incidence of failure, cancellation and change of schools? It is from such enquiries that we can account for the low average transition ratio of 36.06% for the period (Table 1). Thus, in an earlier contribution to the issue in question, with respect to the situation in secondary schools in the northern states of Nigeria, Ozigi (1978) identified and classified the actual factors responsible for wastage and low transition as follows:

- (1) pupil factor—personality, physical and mental capability of the child, motivation, aspiration, discipline, interest, study habit and industry;
- (2) teacher factor—type, qualifications, adequacy, effectiveness, continuity, specialisation and turnover;
- (3) curriculum factor—relevance, suitability, nature and type of courses and methodology or technique;
- (4) examination factor—validity, reliability, effectiveness of tests;
- (5) social factor—influence of home, society, parental income and ability to provide children's requirements;
- (6) political and administrative factor—policy, finance, supervision and inspection, and provision of guidance and counselling (pp. 130–131).

As a test of the empirical relevance of Ozigi's classification, the author's work on wastage shows that 90.7 per cent of teachers in a sample of schools in Bendel State revealed that lack of motivation contributed to lack of academic progress among pupils. It is worthy to note too that De Cecco (1974) had revealed that motivation is a principal factor which increases or decreases the vigor of an individual's activity, hence the teachers' responses were in the expected direction. On the question of discipline, 91.7 per cent of teachers felt that the low disciplinary disposition of pupils was also accountable for their poor performances in the West African School Certificate (WASC) examination. Finally, on the impact of ill-health on wastage and transition, 44.1 per cent of teachers agreed that this had some influences, while lack of finance, poor curriculum and low parental income were respectively rated by 83.9%, 64.5% and 62.3% of teachers, as being of relevance in academic success of pupils (Enaohwo, 1980). Closely related to these findings are the revelations by pupils. These showed that only 16.7% of students had their academic work impeded by pressure of domestic work, while 72.3% of teacher offered informal form of guidance and counselling since there was no formal provision for this purpose.

From these results it would appear that Ejieh's concern was certainly the identification of the incidence of wastage and its reciprocal (which is transition) and not actually finding the factors accountable for turnover among pupil the more complex preoccupation. As a result, a survey by the Federal Ministry of Education (1985b), in co-operation with UNESCO, also addressed the issue of incidence of transition without delving into the factors responsible for prevailing trends. However, there was an expressed concern by the ministry that such a study on factors was essential in order to offer any mean-

ingful solution to the problem of low transition from the primary cycle to the secondary cycle. In carrying out the study on incidence of transition, the Federal Ministry of Education/UNESCO team defined transition as the number of pupils entering secondary education at a given year, expressed as a percentage of the number of primary school leavers of the preceding school year. Thus, transition to junior secondary school (JSS) one, in 1982, was enrolment in JSS I divided by primary six leavers in June 1982, multiplied by a hundred.

To carry this out carefully and accurately, correct enrolment data must be obtained, hence adequate care must be taken of drop-out, repetition, transition from classes V & VI (since the common entrance examination can be taken in form V as well) and re-entry into the secondary cycle by employed and unemployed youths. In addition, the overly-ambitious estimates by states' ministries of education must be properly scrutinised to minimise analytical errors.

Levels of Transition Rates

The issue of transition from primary to secondary education became a political matter in the second republic because of the tendency of some states to introduce a free secondary education. Although the 70 per cent transition rate recommended for the Third National Development Plan period was also set as a political objective (Federal Republic of Nigeria, 1975, p. 252), actual national average for the 1980/81 academic year was about 68.53 per cent (Federal Ministry of Education, 1985, p. 14). This was against the national average of 56.32 per cent, based on data for 17 states in 1979. In other words there was a substantial improvement of 12.21 per cent between 1979 and 1980/81. This might be due to the motivation and political impetus provided by the move towards free education at the secondary level in some states. As shown in Table I, ten of the seventeen states that provided data fell below the actual national average in 1979. On the other hand the number of states falling below the actual national average of 68.53 per cent in 1980 was twelve, altogether.

Furthermore, the actual national average of transition rates from the primary cycle to the secondary cycle fell from 59.7% in 1981/82 to 59.88% in 1982/83 and on to 52.81% in the 1983/84 academic year. As a result, the current rate might be lower than what we started with in the second republic. Altogether, nine states could not attain the actual national average in the 1981/82 school year, while in the 1982/83 year eleven states fell short of the actual national average. For the 1983/84 session, the worst year thus far, thirteen states could not achieve the actual national average. Significant, also, is the fact that for the period under review, the actual national transition rates fell below the targeted national average of 70 per cent for the country. In this regard, if one may hazard a guess, it is not unlikely that the reintroduction of fees, coupled with the economic hardship, may have curtailed individual ambition to acquire secondary education. As we have shown previously in this discussion, several factors come into focus in determining the causes of low transition rates in different groups. Furthermore, the isolation of selected factors to find out their respective contributions requires detailed regression analyses which lie outside the scope of this paper. As a results we will concentrate on states which exhibit rates below the target rate of 70%. These, definitely, are the problem states in terms of transition.

TABLE I
TRANSITION RATES FROM PRIMARY GRADE VI TO
SECONDARY FORM I, BY STATE, 1979/80 TO 1983/84

1	2	3	4	5	6
STATE	1979-80*	1980-81	1981-82*	1982-83	1983-84
Anambra	32.9	36.0	37.9	31.2	42.3
Bauchi	81.3	43.8	24.8	47.4	36.7
Bendel	89.2	105.0	106.0	98.8	83.8
Benue	31.9	44.8	34.6	36.7	26.9
Borno	---	66.7	---	---	37.2
Cross River	41.6	52.2	44.5	51.9	50.0
Gongola	53.4	48.2	38.7	39.2	32.0
Imo	33.3	51.3	34.1	64.3	58.3
Kaduna	28.1	42.8	31.7	40.1	29.9
Kano	49.4	46.0	37.8	19.8	16.2
Kwara	83.4	66.2	63.0	36.3	36.4
Lagos	64.4	102.1	92.0	90.6	101.4
Niger	48.2	96.8	67.6	45.4	32.6
Ogun	63.9	122.9	105.5	86.9	84.2
Ondo	98.9	106.2	94.3	110.8	100.0
Oyo	55.1	75.7	75.8	96.0	95.8
Plateau	56.7	48.8	49.2	44.7	43.8
Rivers	---	47.6	63.4	84.8	34.0
Sokoto	45.7	98.9	73.7	40.6	34.8
Federal Capital Territory	---	---	---	72.3	79.9
Total Average	56.32	68.53	59.70	59.88	52.81

Levels of Differences Over Time and Among States

To find out the significance of yearly variations and differences in transition ratios, obtained rates in Table 1 were subjected to computation through a one-way analysis of variance (ANOVA). In addition, pair-wise t-ratios of the differences between yearly group means were derived from the standard error of the within-group estimates of the variance (Lewis, 1967). For this purpose, the hypothesis that guided these analyses was stated in the null form, viz: no significant differences exist among the states of the federation in terms of their respective transition rates from primary to secondary schools, over time. As we have indicated, the purpose of this exercise was to find out if real variations among the states over the years (1979-1984) are substantial enough to warrant differential treatment for improvement. For this purpose, relevant data and results are presented in Table II.

TABLE II
RESULTS OF ANOVA ON TRANSITION RATES

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	Result
Total	63,213.585	92		F = 0.951;
Between Groups	2,618.5	4	654.625	Not significant at 5%
Within Groups	60,595.085	88	688.581	(P = .4388)

As the F ratio in Table II shows, the result is not significant. However, a non-significant F ratio may not necessarily mean that all the group mean differences are equally not significant. To find out the actual situation between any two years, the significance of the difference of any particular pair of group means was tested by computing the respective t-ratios. The results of the t-ratios between ten pairs of group mean differences are presented in Table III.

TABLE III
RESULTS OF T-RATIOS AMONG TEN GROUP MEAN DIFFERENCES

Fair Group	T-ratio
2 and 3	1.4714
2 and 4	0.4073
2 and 5	0.4290
2 and 6	0.4230
3 and 4	1.0641
3 and 5	1.0424
3 and 6	1.8944
4 and 5	0.0217
4 and 6	0.8303
5 and 6	0.8520
Results: Not Significant at 5%	

From I and III we find that both f ratio and t-ratios are not significant at five percent level, so we accept the null hypothesis. In other words, the observed levels of variations over the years are not substantial or significant enough to conclude that the states belong to different populations in terms of transition.

Discussion

As revealed in Tables I, II and III, results from data analysis have shown that most of the states, excluding the Federal Capital Territory, have consistently fallen below the 70 per cent (national) transition rate anticipated for the country for the period. Thus, actualisation of programmes has not led to the realisation of national goals in this respect. From available data in Table I, we find that the average national transition rate from the primary level to the secondary cycle was about 59.3 per cent for the period, a short-fall of 10.7 per cent. How do we overcome this for the future? This is the challenge of the planner. To tackle this problem something positive must be done to bring the disadvantaged states to the national target. This calls for a policy of positive discrimination in favour of these states, in terms of fiscal and resource allocation for the development of these schools. This is to enable these institutions to turn out qualified candidates for the secondary subsystem. This is necessary for secondary schools to realise their goals which include

- (1) preparation for useful living within the society, and
- (2) preparation for higher education (Federal Republic of Nigeria, 1981).

As a result, pending the results of a national survey of transition factors, we should focus on some of the factors already identified such as lack of motivation, poor discipline, ill-health, lack of finance, poor curriculum, low parental level of income and lack of effective guidance and counselling. This is necessary to achieve the national average and move on to the hundred per cent target nation-wide.

A second major finding that should attract the attention of planners is the downward trend in transition rates, as revealed by the declining ratios since the 1981-82 academic year. This decline shows that we are even unable to maintain an appreciable average for the future. This calls for a lot of concern. When this problem is taken together with the case of states that fell below the national average, then, a salvage programme is inevitable for the system. In this respect, we must look at the problem of motivation, as exemplified by enrolment trends in the junior secondary school. Evidently the states doing poorly in transition also experience relatively low enrolments, with the exemption of Anambra. To improve this pattern, a scheme of universal attendance at the junior secondary school must be pursued. This calls for adequate funding and the provision of required space, facilities, teachers and equipment. Judging from our lean financial resources, the boarding approach to secondary education at the junior secondary school should be de-emphasized, thereby releasing some funds for the actual financing of school processes. In this regard the junior secondary school may become universal through day attendance. A form of "universal" orientation by government will also be necessary to instill the spirit and willingness of school attendance into primary school leavers in those states where enrolment is abysmally low. If nothing else, this was achieved through the universal primary education (UPE) scheme of the seventies.

The third concern in the issue of transition is the problem of finance, from the private and social/governmental perspectives. From all indications, it appears that government cannot cope with the situation alone, especially with the provision of facilities and the ability to service them. Thus, the current practice of community involvement should be vigorously pursued while individuals who have the where-withal to establish and run schools should be encouraged, as long as these institutions are operated according to government standards. Already privatisation of educational enterprise at the lower levels

has gained foothold in many states. Besides, to avoid the collapse of the system, as was almost the case during the second republic, individual contributions to the viability of schools should be encouraged whenever the need arises. To make this a success, a form of government-backed compulsory education insurance scheme may not be out of place, since government alone is unable to cope. While such an approach will reduce the welfare burden and promote greater enrolment, it will also lead to the improvement of school health care, establishment and maintenance of efficient guidance and counselling services, and curriculum renewal.

Finally, the question of indiscipline, and its impact on wastage and transition, must be viewed as a national problem or malaise. As a result the solution to the problem must be sought from a national perspective. In this respect, a reformatory approach towards discipline in schools should be adopted instead of the present punitive emphasis which turns pupils into truants and drop-outs over time.

Conclusion

A point we cannot overlook is the purpose of enhanced transition to the individual and society. In other words, what is the need for improved transition ratio when the economy is depressed and there are not enough jobs to go around? Will it even not be necessary to curtail enrolment to reduce the government's financial burden? Without over-emphasizing the issues, it is acknowledged that educated individuals constitute the wealth of nations. Hence, for a nation to develop, the crop of skilled manpower, to which the school system contributes immensely, must be generated, lest a shortfall constitutes a cog in the wheel of progress. To guarantee this in the economy, transition rates must be improved for it is from among those encouraged to stay that the future manpower needs can be met. No government can therefore afford to tolerate low transition rates which are, themselves, indicators of under-development.

REFERENCES

- De Cecco J.P. and Crawford, W.R. (1974). *The Psychology of Learning and Instruction*. Englewood Cliffs: Prentice Hall.
- Ejeh, M.U.C. (1984). "Wastage in Nigerian Secondary Schools: A Case Study" in *Journal of Education in Developing Areas*; Vol. III, October.
- Enaohwo, J.O. (1980). *Manpower and Material Requirements for the Development of Secondary Education in Bendel State of Nigeria*—Unpublished Ph.D Thesis, University of Wales, Cardiff, U.K.
- Federal Ministry of Education (1985a). *The Context of Planning for Post-Junior Secondary Education* (Report of the National Workshop on Planning for Senior Secondary Education, Kaduna, November 12-15). Lagos: Implementation Committee for the National Policy on Education.
- Federal Ministry of Education (1985b). *Transition Rates from Primary to Post-Primary Education, 1976 to 1983 Intake*. (Background Paper No.3, presented for the JCC Reference Committee on Planning, Meeting of April 18-19 Held in Owerri).
- Federal Republic of Nigeria (1975). *Third National Development Plan Vol.I*. Lagos: Federal Ministry of Economic Development—Central Planning Office.
- Federal Republic of Nigeria (1981). *National Policy on Education (Revised)* Lagos: Federal Government Press.
- Lewis, D.G. (1967). *Statistical Methods in Education*. London: University of London Press.
- Ozigi, A.O. (1978). *Factors Affecting Pupil Success and Wastage in Nigerian Northern States' Secondary Schools* (Unpublished Ph.D Thesis, University of Wales, Cardiff, U.K.).
- Sheehan, J. (1973). *The Economics of Education*. London: George Allen and Unwin.

EDUCATIONAL PLANNING AND SOCIAL FORECASTING: THE CASE OF MEXICO

Mexico has a wide experience in formal socio-economic planning. Since the government of Lazaro Cardenas, there has not been a presidential period without some plan de gobierno. Nevertheless, it was within President Echeverria's term, from 1970 to 1976, that planning activities conducted by the Secretary of the Presidency were emphatically incorporated into the governmental duties.

During the term of President Lopez Portillo (1976-1982), socio-economic planning was under the responsibility of the Secretary of Budget (SPP), which formulated the "Global Plan for Development" (plan Global de Desarrollo). This plan worked as a framework for the "Sectorial Plans for Development" (agriculture, fishing, industry, etc.), under the responsibility of the corresponding State Secretary, and the "Plans for the Socioeconomic Development of the States," under the responsibility of the different states of the federation. Under De la Madrid's presidential period (1982-1988), planning reached constitutional rank, and a law creating the National Planning System was dictated.

These brief references demonstrate the increasing importance the Mexican government has given to socio-economic planning. The wide coverage of this planning from the national government down through the states of the federation and their municipalities has been possible for two main reasons. First, the clear governmental purpose of modernizing and rationalizing public administration, and second, the marked de facto centralism exercised by the national government.

Nevertheless, with regard to the planning of higher education, governmental centralism encounters the obstacle of "autonomia,"¹ or self-government, retained by both the private and state universities, even though they are financially supported by the government. Consequently, educational planning for higher levels in Mexico depends on an agreement of three principal participants: private universities and institutes, state universities and institutes, and the powerful Secretary of Public Education. These three participants conducted their negotiations through the National Association of Universities and Higher Education Institutes (ANUIES).

This Association has a permanent General Secretary, but the main resolutions, generally negotiated, are made by the General Assembly of university presidents and institute directors.

Antecedents

The document entitled *Planning of Higher Education in Mexico (La Planeacion de la Educacion Superior en Mexico)*, approved by ANUIES in the meeting held in Puebla in November 1978, is the direct antecedent of the "National Plan of Higher Education, 1981-1991." From that date, the works of the National Coordination for Planning of Higher Education (CONPES) started.

Juan Carlos Bruera is Professor at the Universidad Autonoma de BCS, Mexico.

Maria Teresa Reboredo is Professor at the Instituto Politecnico Nacional, B.C.S., Mexico.

This Coordination created Regional Boards of Planning for Higher Education (CORPES), incorporating the representatives of the universities and institutes of each one of the eight regions into which the country was divided. Each region includes several states, and its Regional Board was supposed to collect socio-economic information on which planning would be based. Afterwards, a State Commission for Planning of Higher Education (COEPES) was created in each state in order to formulate the State Indicative Plans for Development of Higher Education (PEIDES).

Finally, the Institutional Units of Planning (UIP) were created in each university or institute. Their aim was to elaborate the plan of development for each institution. The National System of Permanent Planning for Higher Education (SNPPES) was then based on the hierarchy of the 172 UIP, the 31 COEPES, the 8 CORPES and the CONPES, covering the entire national territory and most of the tertiary institutions. The organizational apparatus was ready to work (Fig. 1).

Between 1978 and 1981, all the bureaucratic entities forming the National System for Permanent Planning of Higher Education (SNPPES) were created ex nihilo, and the corresponding documents were produced in each level, culminating with the "National Plan for Higher Education, 1981–1991 (PNES 1981–1991). Its main characteristics were:

- a) It was a long-term plan (ten years);
- b) It was an indicative, participative, prospective, iterative, and integral plan; and
- c) It was a set of programmed actions for coordinating and promoting the development of institutions of higher education and scientific research.

Methodological Aspects

The PNES 1981–1991 was elaborated by the following organizations:

- a) The National Council for Coordination for Planning of Higher Education (CONPES), which was composed of high ranking representatives of the Public Education Secretary (SEP) and the university presidents who participated in the National Board of Universities and Higher Education Institutes' Association (ANUIES);
- b) The Joint Secretariat, with one representative of ANUIES and one of the Public Education Secretariat;
- c) The Technical Commission, whose participants were in-service or retired officials, specialists, and advisors in education;
- d) The Support Committee, formed by specialists and advisors. These organizations altogether constituted a small group of only 45 persons, many of them holding other important positions, as in the case of university presidents and the Secretary and Subsecretary of Education.

Five macrovariables were taken into account and used as underlying assumptions for the elaboration of the "National Plan for Higher Education (PNES 1981–1991):

- a) demographic growth;
- b) economic development;
- c) the sociocultural situation;
- d) the state of science and technology; and
- e) the Mexican educational system.

These variables, or systems, were considered as the most influential factors in the

growth and development of the higher education system. A brief description of them will be made here, as they have been developed in the "National Plan for Higher Education, 1981-1991" (PNES 1981-1991).

Demographic System

As is common in other developing countries, Mexico has registered high rates of annual growth of its population (3.2%). According to the judgment of the National Board of Population (CONAPO), the historical trends indicate that Mexico could have 70 million inhabitants in 1980, 96 million in 1990, and 131 million in 2000. If the expectations of the birth rate control plan were accomplished, for the same years the population would be reduced to 88 million in 1990 and 104 million in 2000. Actually, data show an effective reduction in the growth rate of the population and that birth control techniques are being increasingly accepted by the people.

Obviously, an increase in population growth provokes a corresponding rise in demand for educational services. Public education services in Mexico, as it must be pointed out, are gratis from pre-kindergarten through tertiary level. With 25 million people currently attending schools, these costs now constitute 40% of the direct governmental expenditures.

Economic Growth

When the "Global Plan for Development, 1980-82" was formulated, an annual GNP growth rate of seven to eight percent had been calculated. The same rate was taken by the "National Plan for Higher Education, 1981-1991" and projected for the ten years of operation foreseen for the plan. An economy that would grow according to the estimated rate would be extremely important, considering that 95 percent of the costs of educational services were supported by public funds.

Socio-cultural situation

The mainly rural population of Mexico has rapidly become urban. The growth of large cities has been related to emigrations from rural areas. The Plan indicates that in 1990 more than 62 percent of Mexicans will live in cities of more than 15,000 inhabitants. A high increase of educational demand at tertiary level will result, due to the relationship between the processes of urbanization and higher education. Planners estimate that this process of urbanization will continue to grow at an annual rate of 4.6 percent, pressing the demand for the corresponding educational services.

State of science and technology

Since 1970, the Mexican government has been engaged in systematically promoting scientific and technical activities by creating the National Council of Science and Technology (CONACYT) and dedicating .13 percent of the GNP for expenditures in this sector. Thus, in the 1980s, an incipient system of science and technology was established at the national level.

The "National Plan for Higher Education, 1981-1991" estimated that .8% would be designated to this sector in 1981, a rate that would rise to 1.5 percent of the GNP at the end of the decade. Science and technological systems were considered to be tightly linked to the higher education system, where 90 percent of the research in the country has been done.

Educational system

Higher education is the last step of an educational scale that starts in pre-kindergarten. According to the historical trends of matriculation, in 1970–71 the population in higher education was 251,000 students, which represented 5.8 percent of the 20- to 24-year-old population. In 1980–81, the population in higher education was estimated at 838,000 students, representing 13.6 percent of the 20- to 24-year-olds. For 1990–91, the estimation is of 2,240,000 students, which would represent 25.7 percent of the same age group.

Comments

To deal with the future has been, since the time of sorcerers and magicians, a very difficult art. Scientists such as astronomers can make predictions with 100 percent accuracy. Physicists and chemists can also advance accurate forecasts, as can modern biologists. But social scientists must employ both abstract theories and weak analytical tools to explain the complex and changing social reality. This difficulty was clear in Mexico's "National Plan for Higher Education, 1981–1991," whose failure was due, among other factors, to the euphoric and mistaken estimation that the GNP would continue to grow at a seven or eight percent annual rate during the decade. The plan was completed in 1981. In 1982, Mexico faced one of the worst economic crises of its history, which reduced the GNP growth rate to zero or -1 percent, affecting the governmental financing of higher education. In addition, an annual inflation rate of 60 percent eroded this already limited support.

This fact alone would be enough to provoke the plan's failure, but planners made another mistake. They made the plan at the end of President Lopez Portillo's term, which in Mexico means to disregard an old political tradition. In this country, each president exercises "quasi-omnimodo" power during this term, and after that he retires from the political arena. The new president establishes his own plans at the beginning of the term with no obligation to continue those formulated by his predecessor.

In short: a) the progress made by the planners is worthy of praise because it has provided the groundwork and some lessons from experience for future planners; b) continuity of political determination is a necessary condition for successful planning; c) planners must recognize the weaknesses of their theoretical and methodological devices in addressing such a complex and changeable subject as social reality, and they must reach higher levels of realism and objectivism; and d) the more precise forecasting of social events and processes, necessary for the improvement of plans, calls for a major development of the social sciences in all their aspects.

ENDNOTES

¹Political Constitution of the United States of Mexico, Third Article, referring to university autonomy: "The universities and institutions of higher education to which the law has granted autonomy, will have the right and the responsibility of self-government; will reach their goals of education, research and diffusion of the culture according to the principles of this article, respecting the liberty of professorship and research and of free inspection and discussion of ideas; will determine their plans and programs; will establish the terms for the selection, termination and promotion of their academic personnel and will administer their patrimony."

²Unikel, Luis, "El desarrollo urbano en Mexico," El Colegio de Mexico, 1978.

REFERENCES

- Castrejon Diez, J. (1979). *La Educacion Superior en Mexico*. Mexico: Edicol.
- Coordinacion Nacional para la Planeacion de la Educacion Superior. (1981). *Plan Nacional de Educacion Superior*. Mexico: SEP ANUIES.
- _____. (1981). *Politiclas de investigacion en la educacion superior*. Mexico: SEP ANUIES.
- _____. (1981). *Aspectos Normativos de la Educacion Superior*. Mexico: SEP ANUIES.
- Munoz, Ledo, P. (1977). *Presentacion de las lineas generales que orientaran los trabajos del Plan Nacional de Educacion*. *Revista de Educacion Superior*, vol. VI (21), 96-113.
- Reboredo, M.T. (1978). *Planeacion del proceso educativo en la educacion superior*. *Revista Panorama* n 2. Mexico: Universidad Autonoma de Baja California Sur.

Invitation To Submit Manuscripts

The editors of *Educational Planning*, a referred journal of educational planning issues, invite the submission of original manuscripts for publication consideration. *Educational Planning* is the official journal of the International Society for Educational Planning.

The journal's audience includes national and provincial/state planners, university faculty members of educational administration, school district administrators and planners, and other practitioners.

The publication's purpose is to serve as a meeting ground for the scholar-researcher and the practitioner-educator through the presentation of articles that have practical relevance to current issues and that broaden the knowledge base of the discipline. *Educational Planning* disseminates the results of pertinent educational research, presents contemporary ideas for consideration and provides general information to assist subscribers with their professional responsibilities.

Articles preferred for inclusion are reports of empirical research, expository writings including analyses of topical problems, or anecdotal accounts. Unsolicited manuscripts are welcomed. The following criteria have been established for the submission of manuscripts:

1. Each manuscript submission must be accompanied by a letter signed by the author.
2. The length of a manuscript should not exceed 20 typewritten pages (including reference lists, tables, charts and/or graphs).
3. The manuscript should be typed in PICA typeface on one side of white bond paper (8½" x 11").
4. Double spacing is to be used between **all** lines.
5. Margins should be 1" wide along both sides, the bottom and the top of each page.
6. Each manuscript must be submitted in triplicate, one copy of which should be the original.
7. Pages should be clipped together, not stapled.
8. An abstract of not more than 200 words should be attached to the manuscript.
9. A biographical sketch of each author should be attached to the manuscript.
10. Each manuscript should conform to the stylistic requirements of the American Psychological Association *Publication Manual* 3rd ed.

All manuscripts will be evaluated on the basis of relevancy, substance, style and syntax, and ease of comprehension. Manuscripts accepted for publication are subject to editing.

Please submit manuscripts to:

Robert H. Beach, Editor
Educational Planning
P.O. Box Q
216 Wilson Hall
Tuscaloosa, Alabama 35487

International Society for Educational Planning

MEMBERSHIP/SUBSCRIPTION FORM (Please Print)

Name _____
Last First Middle

Organization and Department if applicable: _____

Mailing Address for publication _____

_____ City State Zip Country

FEES: Membership and subscription \$35

Payment by check, money order or PO # required with application.

Return membership application and payment to: **International Society for Educational Planning, Robert H. Beach, Treasurer, University of Alabama, P.O. Box Q, Tuscaloosa, AL 35487.**

International Society for Educational Planning

MEMBERSHIP/SUBSCRIPTION FORM (Please Print)

Name _____
Last First Middle

Organization and Department if applicable: _____


Mailing Address for publication _____

_____ City State Zip Country

FEES: Membership and subscription \$35

Payment by check, money order or PO # required with application.

Return membership application and payment to: **International Society for Educational Planning, Robert H. Beach, Treasurer, University of Alabama, P.O. Box Q, Tuscaloosa, AL 35487.**

<p>ORGANIZATION</p>	<p>The Society was founded on December 10, 1970, in Washington, D.C. Over 50 local, state, national, and international planners attended the first organizational meeting.</p> <p>Since then its growth has demonstrated that there is need for a professional organization with educational planning as its exclusive concern.</p>
<p>PURPOSE</p>	<p>The International Society for Educational Planning was established to foster the professional knowledge and interests of educational planners. Through conferences and publications the Society promotes the interchange of ideas within the planning community. The membership includes persons from the ranks of governmental agencies, school-based practitioners, and higher education.</p>
<p>MEMBERSHIP IN THE SOCIETY</p>	<p>Membership in the Society is open to any person active or interested in educational planning and the Purposes of the Society. To join the Society or renew a membership, please submit the following:</p> <p>Name Address Current Position Present interests and/or activities in the planning area Membership fee of \$25 (make check payable to ISEP)</p> <p>Please forward check and information to:</p>  <p>Dr. Robert H. Beach, Treasurer The University of Alabama Post Office Box Q 204 Wilson Hall Tuscaloosa, Alabama 35487</p>

EDUCATIONAL PLANNING

EDUCATIONAL PLANNING

Box Q • 216 Wilson • Tuscaloosa, AL 35487

Non-Profit Blk. Rt.
U.S. Postage
PAID
Permit No. 16
Tuscaloosa, AL
35487