

RESEARCH MANAGEMENT REVIEW

The Journal of the
National Council of University Research Administrators

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Editor's Preface

The first two articles in this issue are the presentation and acceptance speeches from NCURA's first Award for Outstanding Achievement in Research Administration and, in my opinion, reflect the quality of the membership and the organizational objectives of NCURA. The qualities of Service, Education and Learning, Cooperation, Mentorship, and Risk-Taking are important features of NCURA and its members. As the new Congress finalizes its funding profiles for the coming years, I am sure many of us will practice one or more of these characteristics as we strive to serve our institutions and our profession.

The next article examines barriers and incentives to proposal preparation and participation in sponsored research within the College of Education at a representative land grant institution. As is typical of disciplines that do not have a deep-rooted history of pursuing external support for research, the results of the survey demonstrate that university and college incentives and assistance are required to increase the sponsored research activity in the College.

The fourth article reviews issues relevant to a human subject's understanding and comprehension of informed consent. Based on an analysis of previous studies of the issues, the factors impacting an individual's ability to comprehend written material, and the legal implications of providing understandable informed consent, the authors recommend that simplicity in language is the preferred vehicle to develop consent forms that are understandable by the average subject.

The final article presents the preliminary results of a study focused on the factors bearing on evaluation of sponsored research offices. The preliminary survey results appear to indicate that the use of some form of periodic evaluation of the effectiveness and functioning of the research office is on the increase. As the demands for institutional funds by all segments of colleges and universities continues to increase, the research office is coming under increased scrutiny as administrators are searching for effective ways to utilize limited resources. This increased evaluation activity goes hand-in-hand with the various TQM and Reengineering activities that are becoming more commonplace in higher education. Today's research administrator has to be prepared to deal with these new

pressures and learn to turn such activities into opportunities to improve ones service to the institution and its user community.

Finally, as retiring editor, I want to publicly thank the members of the Editorial Advisory Board who have played a key role in helping me to select and review articles submitted for publication. Without these dedicated individuals there would not be a RMR. Also, I wish the new editor, Steve Erickson, every success and trust that each and every member of NCURA will support his term by considering developing a quality article for possible publication in RMR.

Earl J. Freise
Editor
June, 1995

Introduction of Julie T. Norris
1994. Recipient, NCURA Award for
Outstanding Achievement in
Research Administration
NCURA 36th Annual Meeting

Steven H. Smartt

Editor's note: The *following* comments were made by the President of NCURA upon introducing *Julie* Norris as the first recipient of the NCURA Award for Outstanding Achievement in Research Administration.

I have the pleasure and honor of saying a few words about Julie Norris and to present to her NCURA's first-ever Award for Outstanding Achievement in Research Administration. This special recognition was established by the NCURA Executive Committee last year, to be given to an individual who:

“has made noteworthy contributions to university research administration as evidenced by publications, presentations, and *service in* research administration to their home institution, to NCURA, and to other organizations related to university research administration.”

Nominations were received this spring, and the selection was made by a subcommittee of the Executive Committee comprised of one representative from each of NCURA's seven regions and with the concurrence of the NCURA officers.

Julie Norris is known to practically everyone in research administration circles on campuses, in research institutes, and in key Federal agencies. A full and proper introduction of Julie Norris would be a challenge to compress into a few brief moments. When one tries to distill and highlight the many things there are to know and admire about Julie, the challenge is not in finding enough to say, but rather in deciding what to omit from her distinguished resume.

Steven Smartt is Director of the Division of Sponsored Research at Vanderbilt University and was President of NCURA at the time of this presentation.

On this special occasion, I chose to introduce our award recipient by mentioning just four of the things that contribute to making Julie Norris the person she is. Among these are Julie Norris, the research administrator; Julie Norris the leader among peers; Julie the person who has earned the respect of others; and then a word about the human side of Julie Norris.

First, then, is Julie Norris, the research administrator. She was employed for more than 20 years in the central research administration office at University of Houston, starting in January 1973. At Houston, she advanced through the ranks from Assistant Director of Proposal Review; to Assistant Director of Post-award Administration; to Associate Director of the office; then served as Director. In 1981 she was appointed Assistant Vice President and Director, Office of Sponsored Programs.

The list of her duties at Houston reads like the composite of three job descriptions:

“...responsible for all activities of the Office including proposal development, *processing* of proposals, *negotiating and accepting* awards, post-award *administration*, *preparation of indirect cost proposal*, *billing and financial reporting*, and *handling audits*.” But wait, there’s more: “*patents, technology transfer administration, relationships with industrial companies, encouragement of multi- and inter-disciplinary research activities*.” And, as if that were not enough: “*signatory on all grants and contracts, primary staff liaison with the Research Council, and coordination of all research related safety matters, including human subjects, animal care, and biohazards*.”

Those of us who know Julie well know that she does not just coordinate things for which she is responsible; she gets up to her elbows in her responsibilities.

As of last month - October 1, 1994 - Julie accepted an appointment as Director of MIT’s Office of Sponsored Programs. Some of you may have heard of that institution. As someone once said, a problem at MIT could be considered a solution at many other places.

What I am saying is that, first and foremost, Julie Norris is a research administrator; but to simply say that Julie is a research administrator is tantamount to saying that Amelia Earhart knew something about airplanes.

Second is Julie Norris, the leader among peers. Since becoming an NCURA member in 1973, Julie has held practically every responsible capacity in our national organization. She has served in each of the four officers positions. She was Vice President in 1987 and President in 1988. Prior to that time she had already served as Treasurer (1982- 1984) and as acting Secretary. She has been on the Executive Committee for several

years (1984-1989), chaired four of our five standing committees (Membership, Publications, Nominating, and Professional Development), and served as a member of the Long-Range Planning Committee. She also has served as Chair of NCURA's Southwestern Region. She has been a panelist or session chair at each of the last ten national NCURA meetings and been a faculty member at eight Annual Meeting workshops as well as numerous special conferences and regional meetings. In the area of publications, let me mention our NCURA Newsletter, for which Julie has served as Editor since 1991. In addition, she is one of three authors of NCURA's popular Regulatory and Compliance Handbook, and author of the first volume of NCURA's Fundamentals of Sponsored Project Administration.

As evidence of her service to research administration in other ways, Julie was a member of a three-person research team for a 1985 NSF study entitled Financing and Managing University Research Equipment. She has been a consultant to NSF on its Survey on Research Facilities and Research Expenditures. She was the primary developer of COGR's publication on Managing Externally Funded Programs at Colleges and Universities: A Guideline to Good Management Practices.

Julie also has found time to assume a leadership role in the Federal Demonstration Project and currently serves as chair of the board of the Council on Governmental Relations.

So, to say that Julie is a leader is like saying Sandra Day O'Connor is a pretty good lawyer.

Let me next say a few words about Julie Norris as a person who has earned the respect of others. Julie's respectability has come to her the old fashioned way, as the TV commercial used to say: she has earned it.

The nomination materials submitted on behalf of Julie for consideration for this Award for Outstanding Achievement included testimonials from several people who themselves are distinguished and influential.

Geoffrey Grant, in the Policy Office for Extramural Research at NIH, says:

"Julie is always in touch with the most specific level of detail and the most current event in the development of Federal guidelines. She knows who the actors are and which buttons to push so that the process is as informed as it may be with respect to university needs and concerns the past ten years Julie has provided tireless leadership to the Federal Demonstration Project. She has been steadfast in moments of exhilaration, and a cheerleader during long periods of frustration and inactivity. "

Tom Wilson of the Baylor College of Medicine, who nominated Julie for this Award, offered this perspective:

"Julie Norris's dedication to the profession of research administration has been tireless. Julie has *been very generous in sharing her knowledge with others*, and in turn, has enabled others to achieve success...Julie *can* address a meeting *with* a vision of the future direction of research administration, *present* a technical workshop on *the* latest changes to *an* OMB Circular with *an* affinity for accuracy and detail, or *can counsel* an individual *with the compassion* of a humanitarian. "

C.W. Chu, Director, Texas Center for Superconductivity, writes:

"Julie *is the* most able research administrator *that I have* encountered over the last 25 years. *She* has single handedly changed *the image of the* university research administrator from a bureaucratic obstacle to a helpful resource. "

Jane Youngers, Director, Office of Research and Project Administration at the University of Rochester, speaks of:

'&lie's knowledge of our *field*, *her* willingness to share her knowledge, and the manner *in* which she does so. When Julie speaks on an *issue*, *you always* know you will get accurate and complete information, delivered in a professional and *competent* manner. "

And James Culliton, Vice President for Administration, and Julie's new boss at MIT, states it simply this way:

"I *am* confident that in Julie Norris we have just the right person to direct the Office of Sponsored Programs."

To say that Julie has earned respect and admiration is like saying Mother Teresa deserves honorable mention as citizen of the month in Calcutta.

I turn now to a few observations about the human side of Julie Norris. Someone who has done as much as Julie Norris has over the years has seen some interesting things. She's been on an airplane for a sufficient number of hours to have earned the proverbial "endowed chair on TWA." There was the time she was on a flight with a person who made verbal threats of skyjacking, so the plane had to return to the airport where it originated. She's been on a commuter flight on which the refreshments were served, not by a flight attendant but by the co-pilot, out of an ice chest. She had a reputation for leaving behind her winter coat in the car at the airport when she was based in Houston, where winter lasts just a short while and she is unaccustomed to winter coats. Once after an NCURA meeting, Julie and I were awaiting the same flight, which had been delayed. We passed the time by chatting and reading. Then Julie picked up the airline guide and

looked in the back at the list of three-letter airport codes. Among the list of some 150 codes, I think she recognized all but three.

A few of us have wondered if she can will a change in the weather, perhaps most evident the year when she planned the NCURA Annual Meeting and mentioned she would enjoy seeing some snow on one of her trips to Washington. The last morning of the meeting, the snow came and dumped about 10 inches on the city - and the airports.

I asked many of Julie's friends and colleagues for stories and anecdotes about her. Most offered examples that showed Julie's many acts of kindness, courtesy, and consideration. In short, she's the type of person who helps people across the street and is kind to animals. Suffice it to say that many people would not be surprised if, when they use that old line on Julie - "While you're up, get me a grant" - that she just might deliver on their request.

I decided to take some liberty with my imagination in describing some possible formative moments in Julie's life. If we could do a more complete introduction this evening, perhaps it would take the form of a "This is Your Life" segment. For example, we might be able to find Julie's second grade teacher, who could come out and say things like this:

'Julie was a shy and retiring little girl who would not speak out in class. But I may be confused; it's been a while, you know. Maybe I have her mixed up with that other young lady who wanted to rewrite the textbooks.'

Or, if we could locate her scout troop leader, perhaps they might say something like:

"Julie wanted to know how to start a campfire, alright. In fact, she wanted to discuss the origin of fire, and graph the correlation between the size of the marshmallow, the distance from the fire, and the length of time before the marshmallow is fried to a crisp."

Or, perhaps we could hear a testimonial from the chief of the volunteer fire department in her home town:

"When we modernized our emergency procedures, we discovered that Ms. Norris had already been assigned the phone number 911. And she was doing a pretty good job of handling civil defense matters and organizing a SWAT team by herself."

All fanciful imagination aside, I am pleased to present to you Julie Norris: research administrator, a leader among peers, one who is respected by so many, and a most unforgettable human being. To underscore all of these admirable traits, tonight we add another distinction - as the first recipient of NCURA's Award for Outstanding Achievement in Research Administration. Ladies and gentlemen, I ask that you join me in welcoming and in honoring, Ms. Julie T. Norris.

Acceptance Remarks
of
1994 Recipient, NCURA Award
for Outstanding Achievement
in Research Administration

Julie T. Norris

Thanks! Some of you will recall NCURA's twenty-fifth birthday celebration and the NCURA fortune cookies at lunch. Those fortunes included such gems as "my great uncle died and left me 1000 shares of Federal Express, and I had to decline because of a conflict of interest." I felt somewhat like that when Steve Smart told me I was the first recipient of this award since he added "and you will have to make a speech at the banquet."

I am not a speechmaker and do not intend to make a speech. However, I want to share some thoughts with you on this, for me, momentous occasion.

It was twenty-one years ago that I began a career in research administration. At that time, research administration was seen primarily as an extension of the traditional activities of university business officers, and not as a separate profession. And I use the term profession advisedly, for what we are all about is certainly that. Research administrators fill a valuable and needed place in the world of higher education and are seen as the primary link between the researcher, the administration, and the, generally Federal, sponsor.

The key to being this link starts, of course, with *Service*, which is the first of six elements I want to mention about being a research administrator. Research administrators walk that often uncomfortable line between service to the faculty and fiduciary stewardship to the institution, and do so with the skill of a trapeze artist. This is, I think, the essence of what we do. In the words of Ray Woodrow, our role is "administration for research" not "administration of research." It is, admittedly, a difficult role at times. We continue to be pressured to do more with less; to work smarter, not harder (but probably it's both). We are members of what I call "the

Julie T. Norris is Director of the *Office* of Sponsored Programs at the Massachusetts Institute of Technology.

regulation of the month” club and we cope with increasing stewardship and compliance requirements while doing whatever we can to make these requirements transparent to the researcher. And we do it quite well.

The next element is Education and *Learning* - and I'm not talking necessarily about formal degrees. I cannot emphasize enough the need we all have to learn - and learn throughout our careers. One of the most exciting and challenging things about research administration is its dynamism - every day brings new challenges and opportunities. What a dull world it would be if every day we faced exactly what we had faced the day before. This is also really hard work - everyone here knows the problems of meeting day to day expectations of faculty, sponsors, and others in the administration and trying to stay ahead of the learning curve. Just learning to navigate the information superhighway is a new experience for many of us but a necessary ingredient as we look toward research administration in the next century.

We learn from a variety of sources. Not only is it what we read and what we learn from our failure, but we learn from each other. This Cooperation among research administrators is certainly unique in this profession. Recently, I was trying (with only limited success) to negotiate a particularly difficult contract and said to the faculty member involved that I was going to call a research administration colleague to see how he had handled a similar situation. The faculty member expressed real surprise at the fact that we in research administration cooperate with each other, even at a time when the faculty members at our institutions are competing with each other. That, I must admit, caused me to do some thinking about why we can cooperate with each other in as many ways as we can, and not let the competitiveness between institutions and faculty for funding affect how we interact. My conclusion is that this is a mark of professionalism. None of us wants to reinvent the wheel and even if we wanted to we don't have the luxury of doing so. So, it is vitally important that we interact in meetings such as the NCURA annual and regional meetings to know what others are doing and take advantage of each other's experiences. It is also why participation in special conferences and workshops is so vital to each of us. The knowledge we gain and the contacts we make are invaluable on our campuses.

These comments lead to the topic of Mentorship. We are in an ever more complex profession. I often wonder whether if, knowing what I know now, I would have embraced research administration as my profession. For people just entering the field, I am sure much is bewildering and you wonder how you are ever going to learn everything that must be learned. It would be great if everything we encountered were either black

or white, but probably 90% is some shade of gray. The hierarchy of regulations is a mystery, how people are able to rattle off CFR and A-1 10 section numbers without looking is amazing, and people seem to always be speaking in code (ATE TRP, IACUC, IDC, NIOSH, etc.). When I first became a research administrator, there was no one at my institution who I could use as a mentor and I remember having to explain to the director why my long-distance bills were so high! I think I spent the first year in a sponsored projects office on the telephone, asking question after question. My NCURA directory was dog-eared from use! But - and this is important - no one ever refused to help. No matter how stupid my questions were, people were unfailingly responsive and gave me not only the right answer but, more importantly, background and direction for why they responded as they did. People across the nation served as mentors, whether they were aware of it or not and I would be remiss if I didn't acknowledge the support and advice I received as I began in this business from George Dummer, Clark McCartney, Stu Cowan, Reagan Scurlock, Tony Merritt, Joann Treat, and Bob Anderson among others and I still seek advice from my colleagues when necessary. My phone bill has gone down only because I use the Internet! In a serious vein, I want to emphasize how important mentorship is for all of us. Many of us who have been in this profession for years have benefitted from the advice of people who were senior in the profession at the time we entered it. They taught us and we learned from them; now is the time for us to play that teaching/mentorship role for those entering the profession. Through teaching workshops, participating in special conferences, by contributing to concurrent sessions, by being available we can - and should - give back what others were so free to give us. I am inordinately proud that many who have held leadership roles in NCURA believe as I do; the profession is the stronger for it and the organization thrives because of it.

I will comment lastly on Risk-Taking. It is hard to be a risk taker; no one wants to fail. But I remind you that we all learn from failure-and, if handled properly, we benefit from falling upon occasion. I'm not advocating that we spend our life suspended on a tightrope over the Grand Canyon, but reasonable risks are worth taking and are, by and large, the real excitement of what we do. I am an optimist; people can achieve and reach new heights but they must try the new, the different. Here is one area where, today, I think I'm an expert. As some of you know, I left the University of Houston (a medium sized public institution in the Southwest) on October 1 for MIT (a large private institution in the Northeast) after 30 years at UH - I think that qualifies me for being a risk taker. Milton Goldberg's comment to me that "the only thing Houston and Boston have

in common are the last three letters of their names” is far truer than I imagined. But it is giving me the opportunity to do new and exciting things and see research administration from a different perspective. I am excited about the new challenge, but sad to leave so many long-time colleagues in Houston. Nonetheless, for me it was the right decision at the right time but, admittedly, a risk.

At the risk of leaving out some people who should be acknowledged, there are some people and organizations that I want to mention. First, my ability to participate in NCURA activities over the years was encouraged and supported by the University of Houston. That institution recognized how important professional development was and never restricted my participation. More importantly, the people at Houston who carried my workload deserve special recognition. I have been blessed to have truly outstanding people in the sponsored programs office at Houston - my undying thanks and gratitude go to those folks, particularly Rosemary Grimmet and Myrta Stager who, along with Kathy Bradley, Steve Dowdy, Sherry Nassar who are here today, have made me look good through all these years. Thanks also go to Anne Sherman of HARC for her unending support and encouragement through the years. Earlier I mentioned Stu Cowan and George Dummer of MIT who were two of the people instrumental in helping me when I started in the profession. I acknowledge my debt to them and pledge that, while at MIT, I will endeavor to do the same. My thanks go to NCURA as an organization for its efforts to enhance the profession and to Natalie Kirkman, Kathy Larmett, and Tara Bishop for their help and support through the years. Of course, I would be remiss in not acknowledging the selection committee and the people - including Tom Wilson, Ann Stevens, Geoff Grant, Jane Youngers, and Jim Culliton - who supported my nomination for this honor. Finally, I want to thank each of you for being an NCURA member and working so hard and ably for this profession. You have my gratitude and my thanks.

Barriers and Inducements to Grant Related Activity by a College of Education Faculty

Larry M. Dooley

Abstract. More and more pressure is being placed upon faculty to pursue extramural funding. This study measured the impact of this requirement to overall faculty climate, and it identified the barriers and inducements to grant writing. The relationship between contracts and grants awarded, and several inducements to successful grant writing were observed (i.e., release time to prepare proposals, personnel support, administrative support, recognition in college publications, personal financial compensation, etc.). The results of this study indicate the following: first, university administrators should develop a system that will provide faculty members with assigned time for preparing grant proposals; second, university administrators should provide start-up money (i.e. staff support, equipment purchases, travel money) for competitive grant writing; third, administrators should place equal emphasis on grant writing and receipt of grant awards; fourth, creation of a college grants office is essential. In short, universities should develop incentives to support faculty ideas and projects.

INTRODUCTION

Faculty in colleges and universities have been involved in grant writing and other income generating scholarship for some time. In the past this was generally limited to the hard sciences and fields that were “hot” at the time. With dwindling resources affecting all faculties, however, the entire academy must consider extramural funding or face the consequence of loss of programs.

The College of Education at Texas A&M University has entered into a process to change its research culture. Its goal is to encourage more faculty participation in extramural funding. To that end, the College has created

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an infrastructure with a Grants Office that offers assistance to faculty in grant procurement and management.

In the Spring of 1993, Thomas C. Monahan¹ published a study that surveyed college faculty in New Jersey to determine the barriers and inducements to grant-related activity. This researcher was intrigued by Monahan's study and wanted to discover the barriers and inducements for the faculty in the College of Education at Texas A&M University.

BACKGROUND

Grant-related research studies have focused on two areas: (1) the barriers and obstacles that have hindered professionals in their pursuit of grants, and (2) the incentives and inducements that have allowed them to win grants. Monahan's studies pinpoint mechanisms that have helped faculty in grant writing activities.'

Internal economic pressure and the escalating cost of higher education are reshaping the priorities of university faculty. Throughout the 1980s and 1990s, external funding has become an important source of income for universities, where 13 percent of revenues have come from grants and contracts. Burgeon² concluded that, "...more than ever, with declining percentages of state budgets allocated to higher education, academics who wish to engage in first-class scholarly research are going to have to find ways to support themselves...". The increasing exigency to secure grant funding has created greater urgency for faculty to examine grant writing as an activity necessary for professional advancement.

Increased pressure to obtain grant funds has exposed a deficiency in the ability of most university research offices to support these efforts. This deficiency has been fueled by a grant submission process that is inherently intimidating. As a result of these inabilities, universities have started to develop seminars and conduct programs to improve faculty skills.³

Throughout the last two decades, subsequent studies have focused on improving conditions to increase the success rate of obtaining Federal grants. Churchman and Hellweg⁴ concluded that to increase the number of grants received the following institutional obstacles must be addressed: (1) higher teaching loads, (2) smaller faculties, (3) failure of administrators to recognize the importance of grants, (4) attitude of faculty toward grants, (5) lack of administrative support, and (6) superfluous procedures.

In assessing perceptions and attitudes, Cook and Loadman⁵ compiled a list of perceived truths about grant proposal development. Their resulting conclusions included: (1) know the funding source, (2) write clearly and precisely, (3) proposing agency reputation makes a difference, (4) clarity of proposal writing is important, (5) staff capability is important,

(6) documentation of costs is essential in budget preparation, (7) developing a proposal does not guarantee funding, (8) flexibility in budgeting, and (9) not missing the deadline for submitting a proposal.

During the same year, Lischwe and Manning³ delivered a grant development seminar to increase external fund raising activity among the faculty at Southern Illinois University at Edwardsville. The seminar was based on a multitude of grant developing difficulties which included: (1) finding an appropriate funding agency, (2) completing a sound, well-written, persuasive proposal, (3) mastering budget preparation, and (4) navigating bureaucratic regulations.

Mishler⁶ reported that in the fiscal year of 1983-1984 the Board of Curators at the University of Missouri-Kansas City (UMKC) identified campus-wide mechanisms to reach their long term goals. The university wanted to enhance research capabilities and double sponsored funding by 1990.

Between the fiscal years 1985-1986 to 1986-1987, grants awarded to UMKC increased from 32% to 56%, by using the following incentive& (1) a research-oriented faculty development program was established, (2) a merit system to enhance salaries for securing funds was implemented, (3) teaching loads were reduced, (4) personnel and financial record-keeping systems were created, and (5) goal setting systems were begun.

In 1989, Gallaher and Daniel⁷ conducted a study to determine impediments for grant writing within the college of education of a large public university. A survey indicated that although faculty members considered grant activity important, many did not routinely pursue this type of funding due to the following impediments: (1) lack of time, (2) lack of information about funding sources, (3) lack of procedural information, and (4) lack of a clearly defined system of rewards for obtaining funding.

This study also noted three incentives to grant writing which included: (1) clearly defined reward systems, (2) adequate release time for the activity of pursuing grants, and (3) administrative support for the implementation of the grant writing process⁷.

Monahan's study⁷ was among the most recent research conducted on grant writing barriers and incentives. The study randomly surveyed 260 full-time faculty at eight state colleges. Monahan reported that the following obstacles prevented faculty from participating in grant-related activities: (1) heavy teaching loads, (2) scholarly and entrepreneurial interests, (3) committee or other administrative assignments, and (4) lack of advance warning of funding opportunities.

Furthermore, Monahan¹ found that faculty members needed assistance with the following: (1) seeking external sources of funding, (2) preparing proposals and budgets, (3) getting the necessary approvals, and (4) dealing with sponsors. Few faculty received help completing any of these requirements.

Monahan¹ further proposed eight recommendations to encourage and motivate faculty to further their involvement in the grant development process. These recommendations were: (1) create a grants or sponsored project office, (2) provide a **grant** specialist who will actively assist faculty, (3) develop a grant and contracts handbook which includes college policies, (4) offer workshops and seminars, (5) provide tangible rewards for grant writing, (6) promote collegial work, (7) communicate clearly and frequently the value of scholarly activity, and (8) include a grant development course in the graduate curricula.

This background study reviews incentives and barriers to grant writing activity. The present study was designed to augment previous research by conducting a survey of existing barriers and inducements to tenured faculty within the College of Education at a major southwestern university.

THE TEXAS A&M UNIVERSITY CLIMATE

Established in 1876, Texas A&M University is the oldest public institution of higher learning in Texas. It is the only university in the country to be ranked nationally among the top 10 in total enrollment, enrollment of new National Merit Scholars, value of research expenditure and size of endowments. In 1992, it was ranked eighth among the nation's research universities by the National Science Foundation. The University's current research funding is in excess of \$305 million.

Since its inception in 1969, the College of Education at Texas A&M University has maintained a mission statement that focuses on teaching, research and service. However, many available resources have been directed into the teaching mission with dramatically fewer resources being channeled into the service and research missions. As the university evolved and achieved its position among the leading research universities in the country, the College of Education expanded its teaching mission to serve a more diverse population. Programs expanded and the number of undergraduate and graduate students completing degrees increased. Research agendas, although encouraged, were not actively promoted. This situation resulted in a relatively level amount of external funding and published works coming out of the college. As time passed, the university came to expect all colleges to place greater emphasis on their research missions. This expectation is quite explicit for the College of Education.

From 1969 to 1989, the level of external funding for the College of Education was relatively constant, rarely surpassing \$1 million. However, through a new Dean hired in 1990, the university administration delivered a mandate to dramatically increase research funding. One of the changes brought by this Dean of the College of Education was a position of Associate Dean of Research. The charge for this new staff position was to dramatically increase the level of external funding. Under the able leadership of the new college administration, a clearly defined research culture, as discussed in the subsequent paragraphs, was established and the college began to reap the immediate benefits. Grants and contracts dramatically increased each year. Today, external funding may surpass the \$10 million dollar mark for the first time.

ESTABLISHMENT OF A RESEARCH CULTURE

The purpose of the new research culture was to dramatically increase extramural funding, and reduce the reliance on appropriated funds. Therefore, the College of Education adopted the following plan:

(1) Establish sufficient *administrative/technical support staff* to assure that quality support and *project* management will occur. The following individuals were employed or contracted: an additional bookkeeper to manage the fiscal aspects of projects, a technical writer/editor to assist in proposal development, and two research/editorial assistants to edit a newsletter listing research opportunities, conduct literature searches, and serve as proof readers. These last two positions were allocated only for the first three years and were phased out completely this year.

(2) Establish a *Research Council* for the College of Education to provide *policy recommendations* on the research mission. This group meets monthly and has developed guidelines for small incentive grants, travel grants, and research fellowships. Most of the members are successful principal investigators who lend credibility to the Council.

(3) Foster the Development of a College-wide Research Culture. This goal was accomplished by providing start-up funds for faculty research projects and infrastructure to enable proposals to be submitted with ease. Using partial indirect cost returns or other sources, the Research Council established procedures to award \$6,000 in small grants.

(4) *Establish the College of Education Fellows Program*. This program awarded \$1,000 to selected Principal Investigators to support their research programs. The allocation included \$500 in travel and operating funds to the researcher plus \$1,000 in release time to the department for a period of three years. These fellows were also available to mentor new faculty.

(5) Establish opportunities for faculty to maintain and upgrade research and technological skills through scheduled seminars and intersession short courses. A college-wide calendar of activities was developed and promoted. The Research Fellows annually present a series of seminars related to faculty development.

(6) Establish a Research Center for the College Of Education to highlight the centrality of knowledge production as a mission of the College. This Center fosters the development and promotion of research agendas in cognitive science-learning assessment, instructional technology, teacher preparation models, models for family literacy, and interdisciplinary curriculum projects.

(7) Promote research and scholarly publication. Promotion efforts include a display case that exhibits scholarly research produced by College of Education faculty; a research column for the College of Education Newsletter that goes to all graduates from the College as well as friends of the College; and an External Funding Report that accounts for external awards and major findings resulting from funded projects.

METHODOLOGY AND DATA COLLECTION INSTRUMENT

For the purposes of this study, all tenure track faculty (i.e., 106 members) in the College of Education were surveyed. A five-page survey instrument was developed, pilot tested and distributed to each faculty member with a cover letter from the researcher. The introductory part of the instrument collected respondent profile information such as gender, rank, tenure status, length of teaching experience, and teaching/research field. An additional question asked whether respondents knew if the College operated a Grants Office. Other questions asked if the respondents received release time to prepare a proposal or work on a successful proposal; if there was a return on indirect cost to the department; did they receive administrative support such as recognition in College publications or additional travel funds to cultivate grants; and whether successful grant applications provide benefits toward promotion and tenure. Moreover, faculty were asked to rank factors such as heavy teaching load, heavy advising load, campus review/approval requirements, lack of knowledge of budgeting, etc. as factors that discouraged them from seeking grants. Final questions asked the respondents to rate the importance of release time, administrative support, recognition, etc. toward grant writing. Moreover, they were asked to rate both the importance of a College Grants Office, and the frequency they received assistance from this Office.

SAMPLE CHARACTERISTICS

Usable surveys were returned from 58 of the total 106 tenure track faculty in the population; a response rate of 55%. Checks were performed that determined the returns were evenly distributed across all departments, with no department being over or under represented. Follow-up contact with non-respondents indicated that systematic non-response was not a factor. Additionally, checks were made to assess the distribution of the respondents in terms of faculty characteristics. These checks revealed that the respondents did not represent the faculty population in terms of gender (i.e., 58% of the males responded whereas only 45% of the females responded.) The respondents were slightly over represented by senior faculty (i.e., 52% of the respondents versus 43% of the population). Distribution of teaching experience and academic discipline almost mirrored the population.

DATA ANALYSIS

The survey findings reveal a large percentage of the faculty feel involvement in grant-related activity is worth the trade-off for time spent on other scholarly activity, especially from a tenure and promotion standpoint. In fact 84% of those responding felt consideration in promotion and tenure decisions was a very important to moderately important factor regarding their involvement in the grant and contract process.

Incentives to Grant Writing

Table 1 presents summary results on faculty opinions regarding the importance of various factors as incentives for grant development. Table 2 provides a summary of survey results for faculty that have received certain benefits. Because proposal development preparation and writing is time-consuming, it is not surprising that 42% of the respondents reported that release time to prepare a proposal is very important, and 4% reported they had been granted this release time. Another important consideration was the fact that 93% of the respondents said administrative support such as personnel, travel and equipment was moderately important to very important during the proposal preparation phase, and 18% of the respondents reported receiving this type of support. Consideration in promotion and tenure decisions was rated as very important relative to grant writing by 54% of the faculty, and 47% said they had received this consideration. And finally, recognition in college publications was rated as very important by 18% of the respondents, and 30% of those responding had received this recognition. Of the other incentives on the survey, the satisfaction of receiving the grant was listed as a very important incentive by 47% of the

respondents, whereas having the opportunity to support promising ideas was rated very important by 76%, building a reputation for the program was rated high by 56% and having the extra resources for equipment was rated high by 52% of the respondents.

TABLE 1
IMPORTANCE TO GRANT-SEEKING
(IN PERCENTAGES)

	Very Important	Moderately Important	Marginally Important	Not Important
Release time to prepare proposal	42	33	21	4
Release time to work on successful grant	68	23	9	0
Partial return to department of indirect cost	56	33	9	2
Personnel support (GA and/or Secretaries)	57	32	11	0
Opportunity to recruit for top quality graduate students for program	58	27	13	2
Administrative support (travel funds or equipment)	55	38	7	0
Consideration in promotion and tenure decisions	54	30	10	6
Recognition in College publications	18	25	36	21
Other forms of public recognition	13	25	45	17
Personal financial compensation	40	30	25	5
Satisfaction of obtaining grant	47	37	16	0
Having opportunity to support promising idea or research	76	20	4	0
Having resources to acquire equipment	52	36	12	0
Gaining recognition for my institution	19	63	13	5
Building reputation for program	56	38	4	2

TABLE 2
FREQUENCY OF OCCURRENCE
(IN PERCENTAGES)

	Very Often	Often	Sometimes	Rarely	Never
I receive release time to prepare proposals	2	2	4	25	67
I receive release time to work on a successful grant application	20	12	18	14	36
There is some return to the Dept of indirect cost	37	24	22	2	15
I am provided staff support for proposal preparation	21	15	21	14	29
I am provided administrative support for proposal preparation (travel funds, equip)	9	9	29	18	36
Successful grants provide benefits for promotion and tenure reviews	47	28	15	4	6
Successful grants provide favorable review for merit pay increases	50	15	17	6	12
I receive recognition in College publications	30	25	33	10	2

Barriers to Whiting Grunts

Table 3 summarizes survey results on perceived barriers to grant proposal preparation. Faculty in this survey noted several obstacles to becoming involved in grant-related activity. Among those most noted were heavy teaching load, other scholarly or entrepreneurial interests, and departmental or college assignments. The most cited reason was receiving the information too late to prepare a competitive proposal. Moreover, the findings here compare favorably with other similar studies that show that technical requirements offer few barriers to grant writing. These include sponsor rules, lack of training in grant writing, knowledge of the funding source, and lack of knowledge of budgeting. One should not assume this means that all faculty understand fully the mechanics of grant writing, only that the other barriers are great enough to cause the potential grant writer to make a decision not to write the grant.

TABLE 3
BARRIERS TO BECOMING INVOLVED IN GRANT-SEEKING
(IN PERCENTAGES)

	<i>Very</i>				<i>Not At</i>
	Much	Much	Somewhat	Rarely	All
Heavy teaching load	24	15	36	16	9
Interfere with instructional program	18	14	36	21	11
Grants do not provide equivalent reward system as other parts of faculty mission	14	14	33	28	11
Receive information too late to prepare competitive proposal	20	20	39	15	6
Heavy student advising load	22	9	33	18	18
Other scholarly or entrepreneurial interests	18	25	26	19	12
Departmental or College assignments	16	23	32	18	11
Campus review/approval requirements	4	9	28	37	22
Sponsor rules or regulations (matching funds)	2	12	39	31	16
Lack of training in grant seeking/writing	14	9	33	30	14
Lack of knowledge of funding sources	14	15	34	23	14
Lack of knowledge of budgeting	8	12	18	35	27
Too much work or bother	16	11	47	15	11
No colleagues with whom to work	3	16	41	16	24

Importance of the College Grants Office

Tables 4 and 5 summarize survey results for the importance of a College Grants Office and how faculty took advantage of the services of such an Office. Faculty were asked to rate the importance of technical assistance in the preparation and submission of proposals as well as rate the

frequency with which they had received such support. A very interesting result was discovered; although 74% reported it was moderately to very important for them to have help in locating grant opportunities, only 59% reported receiving such help. One must be careful to not jump to the conclusion that help was not provided. All Requests for Proposals (RFP's) are provided to faculty and department heads routinely. Faculty must be proactive to a certain extent as well. As one would expect, 69% of the respondents felt technical assistance was critical in writing competitive proposals, but only 28% reported ever receiving such help. This is another deceptive finding as the Principal Investigator (IX) must request this technical help and must complete the proposal about a week prior to the deadline to allow time for the technical writer to review, comment, and allow the P.I. time to incorporate the changes and still make the deadline. Needless to say, most P.I.s never allow this much lead time! Again, 78% said help was necessary in budget preparation, and only 48% received this help. Despite this survey response, all budgets are reviewed by the College Grants Office and corrections are suggested to the P.I. where necessary. The respondents also considered assistance in proposal submission important. This would include preparing proposals for overnight delivery and making arrangements with air freight firms. The findings showed 71% of the faculty felt this important, and only 55% reported receiving this help. This is another misleading finding as all proposals are sent to funding sources by air freight, faculty may not be aware of it.

TABLE 4
IMPORTANCE COLLEGE GRANTS OFFICE TO GRANT-SEEKING
(IN PERCENTAGES)

	Very Important	Moderately Important	Marginally Important	Not Important
How to look for grant opportunities	47	27	18	8
How to write competitive proposals	41	28	24	7
How to prepare an accurate budget	49	23	26	2
How to obtain necessary administrative approvals	54	30	13	3
How to deal with prospective sponsors	36	38	15	11
How to deal with College business office	32	34	25	9
Processing forms for signature	48	31	9	6
Processing proposal for overnight delivery	38	33	19	10
Providing copies of completed package to P.I. and serving as liaison with University sponsored research office	48	33	19	0
Obtaining answers to questions from funding source during proposal preparation phase	33	44	13	10
Assistance with budget preparation	43	35	19	3
Providing writing assistance with technical writer	26	37	24	13

TABLE 5
FREQUENCY OF RECEIVING COLLEGE
GRANTS OFFICE SUPPORT
(IN PERCENTAGES)

	Very Often	Sometimes	Rarely	Never
How to look for grant opportunities	23	36	28	13
How to write competitive proposals	2	26	34	38
How to prepare an accurate budget	13	35	35	17
How to obtain necessary administrative approvals	24	31	24	21
How to deal with prospective sponsors	6	20	33	41
How to deal with College business office	9	30	26	35
Processing forms for signature	35	31	15	19
Processing proposal for overnight delivery	25	30	25	21
Providing copies of completed package to PI. and serving as liaison with University sponsored research office	23	30	26	21
Obtaining answers to questions from funding source during proposal preparation phase	17	26	26	31
Assistance with budget preparation	19	43	19	19
Providing writing assistance with technical writer	4	24	33	39

DISCUSSION

Over-taxed appropriated funds and the escalating cost of operating an institution of higher learning are reshaping the priorities of universities. As financial resources diminish, colleges are forced to find alternative funding to support both teaching and research activities. This augmentation to the university mission has placed emphasis on new skills such as budget development and proposal writing. Conducted in 1992, the Monahan study' concluded that some faculty members find the grant writing procedure to be intimidating, time-consuming, risky, and that only 20% were actively engaged. Monahan revealed that faculty members were struggling to facilitate new procedures, locate grant providers, and secure these funds.'

The establishment of a college-wide research infrastructure is extremely important to the overall increased involvement of faculty in the research mission. Deans should do all they can to move research to the prominent position in a college's strategic plan. One way to accomplish this is to examine the mission statement of the college and see where research is mentioned. If research is not mentioned first in the triad of research, teaching, and service, it should be moved to this position. Moreover, college awards programs should promote research activities by recognizing those who submit proposals and those who receive grants.

Faculty perceptions affirm the difficulties involved in developing a grant proposal. To help minimize the burden, most faculty requested that the university support the time-consuming proposal development process by providing release time and administrative support for these activities. A majority of faculty members reported that it was very important to receive this support, however, very few had actually received it. This should come as no surprise because proposal development, preparation and writing are extremely time-consuming and faculty are often trying to juggle proposal commitments with commitments demanded by other university objectives, such as teaching and service. Faculty members clearly want a tangible commitment from the University to support their external efforts.

Furthermore, a majority of faculty members recognized the importance of grant writing to their personal research agenda which enhances their chances for promotion and tenure. Junior faculty sometimes have difficulty establishing a research agenda that will lead to new knowledge and publications. With grants and contracts, one has access to data and can develop a long-term research agenda. Most grant writers use data generated from their sponsored research to develop manuscripts for journals. It is interesting to note that the majority of those surveyed considered sponsored research a key factor in positioning them for promotion.

Although recognition seems to be a topic of concern within the College of Education, only a small number of respondents actually thought that recognition within a college publication was important. This was interesting within the context that issues of financial support rated higher on this same set of questions. Having the opportunity to support new research ideas and having the ability to purchase new equipment and resources were both rated as very important by over half the respondents.

To help faculty members succeed at obtaining grants the College Grants Office offered administrative guidance and technical support. The Grants Office hired two research/editorial assistants for editing a newsletter, listing opportunities, conducting literature searches, and serving as proof readers. The Grants Office had limited success, however, because faculty simply would not take advantage of the opportunities offered to them. Of those interviewed, a majority thought that it was very important to receive help in locating funding opportunities, while three-fifths responded that they had received this assistance on a consistent basis. In addition, a majority of those surveyed felt that technical assistance was very important for completion of proposals, but only about one-fourth of those claimed to receive such support. It must be understood that the P.I. must request this support, and have time to utilize it properly.

CONCLUSIONS

Tangible support provided by the Provost and Dean, indicates that the College of Education Grants Office has encouraged faculty to be proactive at grant writing. This has resulted in external funding rising from a little over one million dollars in 1990 to over eight million dollars in 1993. This survey reveals faculty members' opinions about securing funding and documents the perceived barriers and incentives associated with administrative support. The majority of faculty requested more tangible support for their external grant writing efforts.

Texas A&M's College of Education's continuing success at research funding can partially be attributed to the incentives associated with the university research mission. Moreover, all new faculty recruited are actively involved in grants and are usually recruited for this purpose. Research and grant potential are extremely important factors in new and replacement faculty selection.

The College Grants Office within the College of Education was charged to promote the establishment of a research culture and assist faculty in their search for funding. These objectives were addressed by providing the following assistance: administrative and technical support, policy recommendations, fellows programs, seminars, a research center, and research and scholarly publication support.

Faculty perceptions indicated that the College Grants Office was successful in providing recognition among peers. A majority of those who indicated that recognition in college publications was very important, received it. This recognition was accomplished through the development of a research column within the College newsletter, The FYI, and by publishing the external funds received in the External Funding Report.

Furthermore, the perception that during the promotion and tenure process, successful grant writing was considered very important by departmental and college tenure committees was verified. The administration fared favorably with perceptions indicating that 47% of those surveyed received such consideration. These perceptions indicate that the administration has been successful at recognizing grant writing efforts within the College of Education.

Faculty are still requesting tangible support such as release time for proposal development. Release time is very important to successful proposal preparation, but only a small number reported that they had ever received such release time. In addition, administrative support such as personnel, travel and equipment is critical during the proposal preparation phase, but only approximately one fifth of the respondents reported ever receiving this type of support.

Faculty have entered an era of competitive grant writing driven by economic survival. The administration and management of the College Grants Office at Texas A&M was moved from an Associate Dean for Research and Graduate Studies to an Associate Dean whose only responsibility is encouraging research. The following are suggestions for promoting greater grant development activities. These suggestions are based on barriers perceived by faculty members.

First, university administrators should develop a system that will provide faculty members with release time for preparing grant proposals. Departments must manage all awards as a part of the total departmental budget. As such, Principal Investigators should include budgeted funds for lease of departmentally owned computers, printers, etc. For example, the department could buy the equipment and the grant could lease it from the department. By the time the grant was over, the equipment would be owned by the department. Moreover, operating expenses could be leveraged with departmental funds to enable these funds to be increased. Staff and graduate assistants could also be shared with the department, with the salary savings designated to support grant development for all the faculty. These steps are being done in some departments, and they greatly enhance all programmatic operations. Ideally, all department heads should implement these steps.

Second, university administrators should make every effort to provide start-up money for competitive grant writing. These grants should not be limited to the hard sciences, but the competition should be open to all. Administrators need to deliver support such as personnel, travel and equipment necessary for the development process.

Third, administrators need to foster grant writing skills by emphasizing their importance to the livelihood of the university. Currently, rewards only come to successful proposals. Because of the enormous time requirement for submitting a proposal, faculty become discouraged when not funded. Because the success rate nationally, across all fields, is only about 30%, most faculty feel their time is much better spent in writing for publication. Proposal writing should be recognized as well as funded.

Fourth, creation of a college grants office is essential. As discussed, the Grants Office within the College of Education had tremendous short-term success, from half a dozen faculty involved in the grants process in 1990, to 56 becoming successful Principal Investigators in 1994.

Finally, universities should try to directly associate incentives to support faculty ideas and projects. Of those surveyed, 76% indicated that grant writing was important to them because this type of funding allowed them to support promising ideas and build a reputation for their program. The

ability to secure funding for needed equipment also captured faculty attention with 52% responding that this was very important. Personal interests tend to drive faculty members' goals and enthusiasm toward grant writing. Research Administrators need to cultivate this interest.

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Ensuring Subjects' Understanding of Informed Consent

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Abstract. In an age of increasing litigation, increasing federal regulations, and increasing collaboration with industrial sponsors, educational institutions must take the lead to ensure that research activities involving human subjects are conducted in a manner which provides the greatest possible protection for the subjects and the institutions themselves. One area which may need special consideration is ensuring that subjects understand what they are doing when they give "informed consent" to participate in research activities. This paper presents a brief background of informed consent, a list of factors which may affect a subject's ability to understand the consent document, an overview of legal theories applicable to informed consent, and suggestions for preparing consent forms to ensure better comprehension by the subject.

INTRODUCTION

Due to worsening economic conditions, increasing competition among universities and research institutions for Federal funds, and increasing competition among pharmaceutical companies, educational institutions - and especially medical educational institutions - are becoming partners with industrial sponsors more and more frequently. Many of these partnerships involve testing of pharmaceutical products and the use of human subjects in research. While such partnerships are valuable to both parties, educational institutions - as public trusts - must take the lead to ensure that such activities are conducted in a manner which

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provides the greatest possible protection for the subjects involved and the institutions themselves. One area that may need special consideration is ensuring that subjects understand what they are doing when they give “informed consent” to participate in research activities.

The concept of voluntary consent for medical research dates back to the Nuremberg Code of 1947 that was developed in response to the atrocities during World War II. This concept was developed further by the Declaration of Helsinki that was written in 1964 and revised in 1975.¹ Agich² referred to informed consent as “the cornerstone of contemporary medical ethics.” Informed consent is a primary component of medical ethics and has been a requirement included in Federal regulations governing medical and scientific research involving human subjects since 1974.²

The primary purpose of informed consent should be to ensure that no subject is involved in research without a full and voluntary agreement to participate in such research. However, since universities and other research institutions are under mandates to comply with various Federal regulations relative to the use of human subjects (regulations which are intended to protect human subjects), this article will focus on informed consent primarily from a legal and/or compliance perspective.

FEDERAL REQUIREMENTS FOR INFORMED CONSENT

Current Federal regulations³ governing the use of human subjects in research state, “...no investigator may involve a human being as a subject in research...unless the investigator has obtained the legally effective informed consent.” The basic elements of informed consent as stipulated by Federal regulations are:

- (1) A statement that the study involves research, an explanation of the purposes of the research and the expected duration of the subject’s participation, a description of the procedures to be followed, and identification of any procedures which are experimental;
- (2) A description of any reasonably foreseeable risks or discomforts to the subject;
- (3) A description of any benefits to the subject or to others which may reasonably be expected from the research;
- (4) A disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the subject;
- (5) A statement describing the extent, if any, to which confidentiality of records identifying the subject will be maintained;

- (6) For research involving more than minimal risk, an explanation as to whether any compensation and an explanation as to whether any medical treatments are available if injury occurs and, if so, what they consist of, or where further information may be obtained;
- (7) An explanation of whom to contact for answers to pertinent questions about the research and the research subject's rights, and whom to contact in the event of a research-related injury to the subject; and
- (8) A statement that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.

These regulations require written informed consent signed by the subject or a legally authorized representative (with exclusions provided for research involving "no more than minimal risk," and stipulate that the consent form "shall be in language understandable to the subject".

The Belmont Report⁴ concluded that, "Investigators are responsible for ascertaining that the subject has comprehended the information" and indicated that it may be necessary to adapt the consent information to the subject's ability to understand.

ELEMENTS OF UNDERSTANDING INFORMED CONSENT

Faden and Beauchamp⁵ indicated that informed consent requires two understandings: (1) an understanding that consent is required and (2) an understanding of what consent is about. Thomason, et. al.⁶ listed two steps involved in informed consent: (1) informing and (2) obtaining consent, and stated that the "...consent form is not a substitute for the dialogue between the investigator and the subject. The dialogue is the essence of informed consent." The written consent should follow dialogue between the subject and investigator and document information that is given orally.⁷ The written consent form should document: (1) the patient's understanding of the research activity in which he or she will be participating, (2) the fact that adequate information was given to the patient upon which to base the decision to participate, and (3) the patient's voluntary consent to participate.

Palmsano & Mang⁷ indicated that the more high-risk the procedure, the more important it is to ensure that the subject fully understands the information. Chell⁸ mentioned patient competence as an element in informed consent and stated, "The highest standard of competency is

necessary for consent to ineffective treatment (i.e., experimental and unproven treatment) . . .“ but “when experimental procedures have a relatively high degree or probability of enhancing patient welfare, consent that meets the minimal requirements is adequate.” However, since any clinical procedure may involve some risk, care should be taken to ensure a subject’s understanding of all procedures in all cases.

A number of factors may affect a subject’s ability to fully understand the information contained in the informed consent. Some of these factors are listed below:

- physical or mental condition of the patient, especially when these conditions may cause nervousness or distraction;^{5,9}
- technical language;⁶
- visual impairment;⁹
- hearing impairment;⁹
- defense mechanisms such as denial or regression+
- memory;⁹
- ignorance and false beliefs;⁵
- coercion;⁵
- presentation of material, including “tone, manner and order, word choice, time and setting...appearance, style, and character...“;⁵
- competence;⁵
- typeface and lighting;¹⁰
- age;¹⁰ and
- socioeconomic status and cultural dialects.⁹

Another factor which may affect the subject’s ability to understand the written consent form is his or her ability to read. Abram” cited Chell: “readability is the sum total (including interactions) of all elements within the written material that affect the success a reader will have with it.”

Reading is the meaningful interpretation of printed or written verbal symbols. Reading (comprehending) is a result of the interaction between the perception of graphic symbols that represent language and the reader’s language skills, cognitive skills, and knowledge of the world.⁹

While many people may take literacy for granted, the National Commission on Excellence in Education¹² reported that “...23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension” and that functional illiteracy among minority youths may be as high as 40 percent. Thomas¹³ reported that one-fourth of adults nationwide are functionally illiterate, and Moore⁴ reported that nearly 40 percent of the total illiterate population in the United States are elderly and that, as of 1988, “70 percent of adults 55 and older have not completed high school”.

LEGAL ASPECTS OF INFORMED CONSENT

Since litigation has become commonplace in today's society, a study of understanding informed consent would be incomplete if it did not include a section on legal ramifications associated with informed consent.

In general, the laws concerning informed consent are laws of tort.¹⁵ Two legal theories for recovery could be applicable: intentional tort and negligence. Intentional tort theory would be applicable for claims of assault or battery, while negligence is defined as "failure to use reasonable care."¹⁵ Many cases involving informed consent are claims of negligence, which may be chosen because such claims may involve longer statutes of limitations and may afford better access to malpractice injury funds than claims of intentional tort.¹⁵

In order to recover under a negligence theory, the plaintiff must establish four elements: (1) that the defendant (injurer) had a duty to use reasonable care to prevent harm to the plaintiff; (2) that the defendant breached this duty; and (3) that the conduct that constituted the breach of duty was the cause of (4) harm (bodily injury, property damage, emotional harm, and/or economic loss) to the plaintiff.¹⁵

"The basis of the complaint in an informed consent case is that the physician failed to provide the patient with adequate information."¹⁵ What is "adequate information?" Two standards are generally used: (1) reasonable physician and (2) reasonable patient.⁷ The "reasonable physician" standard holds that the physician provided whatever information would have been provided by a reasonable physician. The "reasonable patient" standard holds that the information provided was adequate for a reasonable patient. While a majority of states use the "reasonable physician" standard, about 20 states use the "reasonable patient" standard.¹⁶ Both the "reasonable physician" and "reasonable patient" are measured by the standard within the community.

It is important to note that the burden of proof in a negligence case is on the plaintiff. "Inadequate disclosure alone...& not a legally protected interest",¹⁵ although lack of consent alone could give rise to a claim of battery even if the patient was not injured and might have benefitted from the treatment "because the right of bodily integrity is a legally protected interest".¹⁵

What situations might invalidate written consent? Kozol¹⁷ indicated that illiterates "cannot be bound by what they sign, if they do not understand and if it has not been read to them correctly." The Tennessee Medical Records Association¹⁸ indicated that consent might be invalid if "insufficient information is provided as to what is to be done, the alternatives, and the risks..."

The signature of the patient on a form does not conclusively establish informed consent. If the patient can show that the language on the form was too technical for him to be reasonably expected to comprehend, or that his signature was obtained without a full understanding of the nature of the treatment...the form is worthless.⁶

Documentation by appropriate notation in the medical record or the signing of a consent form, or both, is [sic] essential to the successful defense of a lawsuit based upon lack of informed consent. The more common routine procedures will tend to require less documentation, and the more unusual, complex, or high-risk procedures will tend to require more documentation.⁶

As a general rule, the greater the potential harm or the greater the likelihood of risk, the more caution is necessary in obtaining informed consent; and documentation is essential.

DEVELOPING AN UNDERSTANDABLE CONSENT FORM

What can be done to ensure the subject's understanding of informed consent? Unfortunately, "current regulations do not provide any guidelines to ensure that such information be understood or used during the decision-making process."¹⁰

Since the written informed consent serves to document a disclosure that has been made orally and since the written consent form is the document that would likely be used as evidence in any suit claiming negligence or battery, the investigator must take care to prepare a consent form that the subject can easily read and understand. Although it may be argued that patients who suffer from chronic illnesses are familiar with technical terms related to those illnesses, Federal regulations would dictate that the prudent investigator err on the safe side and use simple language that could be easily understood. Taub¹⁰ suggested writing all consent documents at the 7th to 8th grade reading level since the comprehension of subjects generally is not known. Mullins¹⁹ suggested that instructional materials should be written at 10th grade level or below; and Himstreet and Baty²⁰ suggested that all material be written at the 8th to 11 th grade reading level.

Trying to write at the grade level of the actual recipient is inadvisable. The level may not be known, and even those who have earned advanced degrees appreciate writing that can be read and understood quickly and easily.²⁰

How does one determine the reading level of written material? A number of formulae have been developed over the years, one of the easiest to

apply and more accurate ones being the “SMOG” (simple measure of gobbledygook) index: For 30 full sentences:

- (1) count the number of words with more than 2 syllables;
- (2) estimate the square root of the total, which is an estimate of the grade level.

Another formula which may be used is the Gunning Fog Index, for which a passage of 100 words or more is selected:

- (1) compute average sentence length by dividing the number of words by the number of sentences;
- (2) divide the number of difficult words (three syllables or more) by the number of words in the passage and multiply by 100; and
- (3) add (1) + (2) and multiply by 0.4 to determine the grade level.²⁰

Some institutions may have reading specialists available on their campuses for consultation on matters such as this; on other campuses, computer programs may be available which can determine reading levels and even suggest alternate language which is simpler for subjects to understand.

Apart from comprehension problems, the length of the consent form may present a barrier to its readability. Some legal expert@ have recommended that consent forms be limited to one page or to one page front-and-back; however, this may not be possible in order to include all information which is necessary for the study and to meet Federal regulations.

SUMMARY AND RECOMMENDATIONS

In order to meet both ethical standards and legal requirements, investigators who use human subjects in research must take steps to ensure that subjects have a full understanding of informed consent and that such understanding is well documented. Some suggestions are listed below:

1. The investigator should engage the potential subject in dialogue, provide a thorough oral explanation to the subject, pay particular attention to the subject’s physical and mental condition to be sure that the subject comprehends the information provided, answer all questions raised by the subject, and make a notation in the file of this discussion.
2. The informed consent document should be written at the 7th or 8th grade reading level and should be prepared using large typeface and visual aids to highlight key points. It should be kept as brief as possible without sacrificing content or readability.
3. Adequate lighting should be provided for the subject’s ease in reading the document.

4. Adequate time should be provided for the dialogue between the investigator and the subject and for the subject to read the consent document and give adequate consideration to the decision to participate in the study.

There are no guarantees that all subjects will have a full understanding despite valiant efforts by the investigator, and there are no guarantees that the steps listed above will protect the institution or the subject in all cases or prevent legal action. However, by following these steps, institutions can be sure that they have taken the necessary precautions to fulfill their ethical obligations to the subjects, to meet the legal requirements of informed consent, and to ensure adequate documentation of informed consent to the best of their ability.

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Survey on the Status of Evaluation Activities in College and University Pre-award Research Administration Offices: Frequency and Type

Sharon K. Davis and Peggy S. Lowry

Abstract. There is a lack of current literature which addresses the level of evaluation that is occurring in college and university pre-award research administration offices. This study focuses on the frequency and type of evaluation of these offices. The authors suggest that there will be increased need for institutions to incorporate regularly occurring evaluation while there is a corresponding increase for accountability by these institutions.

INTRODUCTION

During the last several years, institutions of higher education have received increased scrutiny on many aspects of their operation. Some facets that have been brought to the forefront of attention include conflict of interest, ethics and integrity in research, use of indirect cost funds, and the quality of education and teaching. The result of this frequent and repeated public attention has been an erosion of trust and support and a demand for increased accountability on many fronts.

This increased accountability is reflected in the corresponding emergence of related topics on the national and regional programs of professional societies of research administrators. Program topics at professional meetings often serve as indicators of emerging areas of interest or concern and provide a forum for discussion.

Also, recently appearing on professional meeting programs have been sessions that address the issue of evaluation, self-assessment, strategic planning, and Total Quality Management. These topics reflect the heightened awareness by institutions of higher education on the need to focus on operations resulting from the demand for accountability, shrinking

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State and private support, as well as the increased competition for Federal research funds.

The recent emergence of attention on evaluation and self-assessment, as well as quality management and strategic planning, reflects the increased attention to accountability accompanying fiscal constraints. However, during the past several years, journals of research administration have published only a few articles on topics related to assessment¹⁻³. The article by Davis¹, provides a definition of evaluation and describes the purposes of evaluation. According to Davis¹, there is no widely agreed upon definition of evaluation in educational settings. Evaluation is sometimes equated with measurement; in other situations, evaluation is considered to be an assessment of the extent to which specific objectives have been attained. In educational settings, the evaluation process determines the quality, effectiveness, or value of a program.

Lowry and Walker² state that evaluation provides information which is needed to make informed decisions. These informed decisions provide the basis for the research administrator to define and shape their offices. The authors also promote that evaluation is a vital component in planning, management, and accountability.

It appears that heightened awareness of accountability has resulted in more widespread discussion on issues of evaluation and the resulting need for assessment. This suggests that universities are becoming pro-actively introspective of office operations. It behooves us as research administrators to be aware of these university issues and strive to remain on the forefront of current trends.

SURVEY OBJECTIVES

It was the authors' intent to substantiate their observations that increased attention was being placed on self-assessment activities at colleges and universities. Prior to this study no formal survey had been identified that assessed the level of evaluation that was actually occurring in research administration offices. In addition, no data existed noting the form or frequency of that evaluation. An informal telephone survey reported by Lowry and Walker² indicated that of the 34 institutions contacted, 56% had never had an evaluation. However, a more complete survey was needed to substantiate these informal results.

The purpose of the Davis/Lowry survey was to begin to assess formally the status of evaluation activities in college and university pre-award research administration offices. Three general areas were identified for study:

- (1) Frequency of office evaluations and their classification as formal comprehensive evaluations and ad hoc reviews;
- (2) Evaluation process, such as evaluators, purpose and scope, results and distribution; and
- (3) Post evaluation actions such as annual reports, activity reports, and project evaluations and scope of office function.

This paper will report on data collected for the first general area.

METHODOLOGY

An instrument to gather data about the status of evaluation of pre-award research administration offices was designed during November 1991-February 1992. A field test of the instrument was conducted during February 1992 with eleven institutions. Based on the results of the field test, further refinement was made of some of the survey questions. A copy of the final survey instrument is included as Appendix A.

The institutions constituting the Council of Governmental Relations (COGR) appeared to be a representative cross-sampling of different types of institutions across the nation. Permission was granted by the Associate Executive Director of COGR to use their mailing list for the survey population.

Of the total COGR mailing list, the survey sample size resulted in 133 institutions invited to participate. Multiple offices within the same institution were eliminated as were central offices representing state-wide systems. An appropriate individual for each institution was then identified to receive the survey. When possible, this individual was the director or an individual with equivalent responsibilities for the research office or sponsored projects office.

Two mailings of the survey were planned. The first mailing occurred in March 1992. Survey recipients received a cover letter, a copy of the survey, and a return envelope. Recipients were asked to complete and return the survey within three weeks. As a result of the first mailing, a 60.9% response rate was achieved.

A second mailing occurred in May 1992. These recipients received a modified cover letter, a copy of the survey, and a return envelope. Recipients were again asked to complete and return the survey within three weeks. As a result of the second mailing, a total response rate of 74.4% was achieved. Telephone calls were made, and surveys mailed to three additional institutions. With the final mailing, the total survey response achieved 75.9%. One survey was subsequently eliminated from analysis. The remaining 100 surveys were used for the study. Data presented represents total responses for each question.

RESPONDENTS

Respondents to the survey included both public and private universities as well as medical/non-medical institutions. Public institutions (64%) comprise the majority of the respondents. Respondents were relatively balanced regarding their medical/non-medical status. Tables 1 and 2 describe the respondents.

TABLE 1. PUBLIC AND PRIVATE UNIVERSITIES

	Number	Percent
Public	61	64
Private	35	35

n=96

TABLE 2. MEDICAL AND NON-MEDICAL STATUS

	Number	Percent
University, medical	41	53
University, non-medical	36	47

n=77

The majority of the respondents had a pre-award research administration office that had been in existence at the university for 20 years or more (**55%**). Table 3 outlines the number of years pre-award research administration offices had been in existence.

TABLE 3. THE NUMBER OF YEARS OFFICE HAS BEEN IN EXISTENCE

	Number	Percent
Fewer than 5 years	11	11
5-9 years	10	10
10-14 years	13	13
15-19 years	11	11
20 Years or more	54	55

n=99

SURVEY RESULTS

The following tables represent data collected from the institutions responding to the survey questions concerning frequency and type of evaluation. Results represent actual numbers of respondents and percentages based on the number of responses for a particular item within the number of institutions responding to that question.

Formal versus Ad Hoc Evaluation

The survey distinguished between “formal” and “ad hoc” evaluations. A formal evaluation was defined as a comprehensive evaluation required periodically, whereas an ad hoc evaluation reflected an evaluation that was not regularly occurring and might or might not be comprehensive.

Through this distinction, the authors wished to ascertain the organizational perspective toward evaluation. In this sense, the term “formal evaluation” was intended to designate a structured, regularly occurring evaluation, regardless of who required or determined the evaluation, or with what frequency that evaluation occurred. “Ad hoc evaluation” was intended to describe an evaluation that did not occur at regular intervals, regardless of the actual frequency. Neither of the terms, formal nor ad hoc, was intended to reflect the methods used with the evaluation.

The initial survey questions queried whether there were required formal evaluations of the research office and which unit required that evaluation. Tables 4 and 5 reflect that 84% of the institutions responding had no formal evaluation. Of the 16% that reported required formal evaluations, the largest percentage were required by the institution, followed by the reporting unit, and a smaller number of evaluations were required by their own office or the state.

TABLE 4. REQUIREMENT TO CONDUCT EVALUATION

	Number	Percent
Yes	16	16
No	84	84

n=100

TABLE 5. UNIT REQUESTING FORMAL EVALUATION AT INSTITUTIONS

	Number*	Percent
Pre-award research office	3	19
Reporting unit	5	31
Institution	10	63
State	3	19
Other	1	6

*Respondents checked all areas that applied.

n=16

Of the institutions responding that formal evaluations were required, they were asked if this evaluation occurred regularly. The largest response rate was every 5-10 years, followed by 3-4 years, and no set schedule.

Only a very small number indicated annually or every 1-2 years. Table 6 provides results on the frequency of evaluation.

TABLE 6. FREQUENCY OF FORMAL EVALUATION

	Number	Percent
Annually	1	6
1-2 years	1	6
3-4 years	5	31
5-10 years	6	38
No set schedule	3	19

n=16

Tables 7 and 8 present information on offices experiencing ad hoc evaluations and units which initiated the ad hoc evaluation. Ad hoc evaluations occur for slightly more than half of the respondents. Of those who have had ad hoc evaluations, the largest initiator is the office itself, followed by somewhat equal distribution of other units such as the provost, institutional committees, and the reporting unit. The other category was somewhat equally divided between a central administrative position and auditors.

TABLE 7. AD HOC EVALUATION OF OFFICE

	Number	Percent
Yes	53	53
No	47	47

n= 100

TABLE 8. UNIT INITIATING AD HOC EVALUATION

	Number	Percent
Office	15	28
Reporting unit	8	15
Institutional committee	8	15
Provost	8	15
Other	14	26

n=53

In looking at any type of evaluation the office has undergone since 1970 (formal or ad hoc), the highest frequency of evaluation has occurred in recent years. In just the two years preceding the survey, 26 institutions experienced 31 evaluations. Table 9 outlines the periods of time that any type of evaluation was experienced by the offices indicating either formal or ad hoc evaluations.

TABLE 9. YEARS OFFICE HAD ANY TYPE OF EVALUATION

	Number of Institutions	Number of Evaluations*
1970-74	2	3
1975-79	8	11
1980-84	17	17
1985-89	30	41
1990-91	26	31
In progress	4	

*Respondents checked all periods that applied.

In looking at institutions that have experienced both formal and ad hoc evaluations, three-fourths of the offices that have required evaluations also experience ad hoc evaluations. Table 10 reflects the type of evaluations occurring at institutions.

TABLE 10. TYPE OF EVALUATION OCCURRING

	Number	Percent
Formal evaluation only	4	4
Ad hoc evaluation only	42	42
Formal and ad hoc evaluation	12	12
Neither formal nor ad hoc evaluation	42	42

n=100

DISCUSSION

The data presented would suggest that formal evaluation is not yet a high priority among research administrators. The value of scheduling regularly occurring evaluations as a measure for effectiveness and as an indicator for necessary change has not yet translated into the practice of evaluation.

- The paucity of formal evaluations of research administration offices, 16 percent or 16 institutions, is clearly supported by the data. Three of these same institutions had no set schedule for formal evaluations, although by definition the formal evaluation occurred periodically.
- The practice of evaluation occurring on an ad hoc basis is more evident, with 53 percent of the institutions having experienced this type of evaluation.
- With formal evaluations, less than 20 percent of the research offices initiated or requested evaluations themselves, although with ad hoc evaluations that number increases to 28 percent.

For the majority of offices that indicated formal evaluations were part of their environment, this would appear to reflect an institutional culture that embraces a systematic approach to measurement and self-assessment. As part of an institutional culture, the practice of evaluation becomes an expected part of the operation and can therefore be planned and utilized for future improvements. However, formal evaluations were found in a very small portion of the survey respondents and would indicate that the majority of institutional cultures have not yet embraced this practice.

The larger number of ad hoc evaluations would suggest a trend toward utilizing evaluation as a measurement tool. This is especially supported by the larger number of offices that have initiated ad hoc evaluations of their own operations. Should this trend continue, future years may find a larger number of institutions adapting evaluation as part of their organizational operation.

While it appears that evaluation is not yet a high priority, the data also provide evidence that the practice is occurring with increasing frequency. For each of the five-year periods between 1970 and 1989, there has been almost a doubling in each period of the research offices experiencing an evaluation. This might support the view that the awareness of the need for accountability, as previously discussed through the arenas of public scrutiny and increased number of relevant professional meeting topics, is on the upswing.

The environmental factors influencing our operations will continue to exert pressures that shape our practices and directions. While competing priorities often demand attention and consume limited resources, research administrators are in the best position to recognize the role that evaluation can play to provide data about self-assessment and impact of our activities. As accountability continues to demand attention, it is imperative that offices become more proactively introspective of office operations.

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APPENDIX A

A SURVEY OF EVALUATION ACTIVITIES IN PRE-AWARD RESEARCH OFFICES

1. Is your office required to have formal, comprehensive evaluation periodically (not to be confused with individual performance evaluation) ?
 - a. yes
 - b. no

2. Who requires this evaluation? (circle all that apply)
 - a. office
 - b. reporting unit (unit to which office reports)
 - c. institution
 - d. state
 - e. other: _____

3. Does this evaluation occur regularly?
 - a. yes - annually
 - b. yes - every 1 to 2 years
 - c. yes - every 3 to 4 years
 - d. yes - every 5 to 10 years
 - e. no - no set schedule

4. Many offices undergo ad hoc reviews, either initiated by the office or others. Has your office had an ad hoc evaluation?
 - a. yes
 - b. no

5. Who initiated your last ad hoc review?
 - a. office
 - b. reporting unit
 - c. institutional committee
 - d. office advisory committee
 - e. Provost
 - f. other: _____

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 - a. yes
 - b. no

5. Who initiated your last ad hoc review?
 - a. office
 - b. reporting unit
 - c. institutional committee
 - d. office advisory committee
 - e. Provost
 - f. other: _____

6. Since 1970, circle the years your office has undergone any type of evaluation.

1970	1975	1980	1985	1990
1971	1976	1981	1986	1991
1972	1977	1982	1987	
1973	1978	1983	1988	
1974	1979	1984	1989	

comments: _____

no evaluation

7. Please provide information describing the institution.

Institution:

public

university-medical

private

university-non-medical

Institution name: _____

8. How many years has your office been in existence at your college or university (under your current organizational structure)?

- a. fewer than 5 years
- b. 5 to 9 years
- c. 10 to 14 years
- d. 15 to 19 years
- e. 20 years or more

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