

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

UMI[®]

THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

**ALTERATIONS TO FACULTY COMPENSATION
STRUCTURES AT MIDWEST MEDICAL SCHOOLS**

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By

Marcia M. Bennett, M.B.A.

Norman, Oklahoma

2001

UMI Number: 3028802

UMI[®]

UMI Microform 3028802

Copyright 2002 by Bell & Howell Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

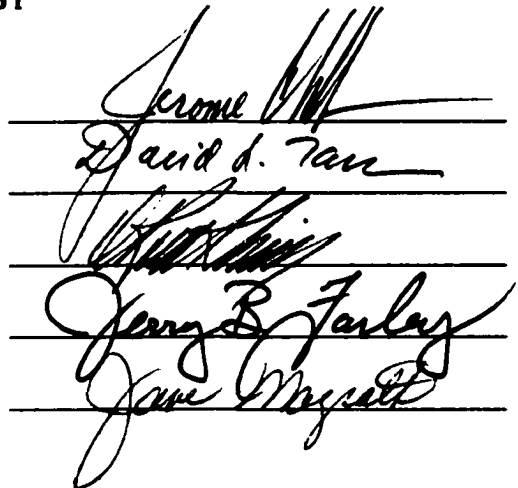
Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

**@ Copyright by Marcia M. Bennett 2001
All Rights Reserved**

**ALTERATIONS TO FACULTY COMPENSATION
STRUCTURES AT MIDWEST MEDICAL SCHOOLS**

**A Dissertation
APPROVED FOR THE DEPARTMENT OF
EDUCATIONAL LEADERSHIP AND POLICY STUDIES**

BY



ACKNOWLEDGEMENTS

There are many individuals who were instrumental in helping me complete this dissertation project and I would like to publicly thank each of them. First, I thank my boss, Senior Vice President and Provost, Joseph J. Ferretti, Ph.D., for always encouraging me to take time off from my pressing job to work on this research project. I also appreciate the assistance of Camilla Reeves, Staff Assistant, who stayed late many nights to help me collate documents, stuff envelopes, and lick stamps.

I am especially appreciative of the support and mentoring provided by the Chairman of my doctoral committee, Jerome C. Weber, Ph.D., who offered just the right mix of structure, freedom, humor and friendship to keep me moving over these many years. The assistance of David Tan, Ph.D., with the survey design and interpretation of data was invaluable, as was the review and guidance provided by Ray Kling, Ph.D. Jerry Farley, Ph.D., was most gracious to continue serving on my committee despite his pressing duties as President of Washburn University in Topeka. And, finally, Jane Magrath, Ph.D., was always there to provide moral support and encouragement.

I also must acknowledge Dr. Barbara Neas, Professor of Biostatistics and Epidemiology, who put me on track when I was completely lost and Dr. Sara Vesely, Assistant Professor of Biostatistics and Epidemiology, for providing assistance with the statistical analysis.

And thanks must to my colleagues at the Association of American Medical Colleges (AAMC) in Washington, D.C. Robert Jones, Ph.D., was most

encouraging and included me in the project to collect faculty compensation plans to establish benchmark data. Jennifer Gold was especially helpful by providing data from previous AAMC surveys.

I also appreciate the assistance of the individuals I met at the various medical schools in the survey population. Everyone was extremely helpful and went out of their way to help with this project. I especially want to thank Patricia Knox at the University of Colorado School of Medicine, and Dr. Olan Nugent at the University of Arkansas School of Medicine for their assistance with distribution of the questionnaires at their institutions. And an enormous thanks to my friend of 40 years, Chloe Shi Odom, who dropped everything to walk all over the University of New Mexico School of Medicine and distribute my questionnaires.

I must also thank my long-time friend and tennis partner, Marjorie Hiel, who put up with my lugging reams of journals articles and a lap top computer to every tennis tournament we entered from California to Florida for many, many, years. Thanks also to friends, Linda and Marvin, for allowing me to flee to their home in San Diego when I needed a quiet place to write.

And, most importantly, I give my love and thanks to my husband, Fred, for doing everything humanly possible to help me with this project over the years. Between my long hours at work and the extra time on this research project, Fred juggled all the daily business of our lives to keep things moving, never once complaining. And, he offered unconditional love and support throughout all of it.

Table of Contents

LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT	x
CHAPTER	
I. INTRODUCTION	1
Background and Significance of Study	5
Statement of the Problem	14
Purpose	16
Research Questions	17
Definition of Terms	17
II. REVIEW OF THE LITERATURE	20
Introduction	20
The Evolution of Medical School Personnel Policies	20
The National Debate on Tenure	36
The Theoretical Context for the Study	53
III. METHODS	61
Introduction	61
Research Design	61
Objectives of the Study	62
Selection and Description of the Sample	63
Target Population and Sample	63
Stratified Sampling	66
Methods of Data Collection	67
Document Collection and Analysis	67
Self-Administered Questionnaires	68
Pre-Testing of Questionnaire	68
Interviews and Site Visits	70
Rights of Human Subjects	71
Data Analysis	72
Limitations of the Study	73

IV. RESULTS	75
Introduction	75
Results of the Data Analysis	76
Medical School Compensation	76
Compensation Plan Characteristics	78
Reasons for Modifying the Plans	86
Process Used to Modify the Plans	88
Strategies: Successful and Unsuccessful	90
Impacts of the Revised Plan	91
Consequences of Change	97
Outcomes and Goal Achievement	99
Faculty Responses	103
Summary	109
V. DISCUSSION	110
Introduction	110
Summary of Major Findings	111
Conclusions	120
Future Research Opportunities	121
BIBLIOGRAPHY	123
APPENDICES	133
Appendix A - Benchmark Characteristics of Compensation Plans	133
Spreadsheet of Characteristics	134
Appendix B –Administrator Questionnaire	139
Appendix C - Faculty Questionnaire	147
Appendix D - Participation Materials	150
Invitation to Participate – D1	151
Informed Consent Form – D2	153
Appendix E – Semi-Structured Interview	155
Information Guide	156
Appendix F – Letters of Permission	166
Institutional Review Board	167

LIST OF TABLES

Table 1 – Most Compelling Reasons for Modification of Compensation Plans	87
Table 2 – Variables with No/Moderate Impact on Plan Modification	88
Table 3 – Financial Guarantee Associated With Tenure	93
Table 4 – Impact of Productivity-Based Compensation Plans On Academic Activities	99
Table 5 – Status of Outcomes and Goal Achievement	101

LIST OF FIGURES

Figure 1 – Number of Full Time Faculty	24
Figure 2 – Faculty Practice Plan Revenues	25

ABSTRACT

The nation's medical schools have a long history of adapting their faculty personnel policies to the economic realities that have confronted them. However, policy adaptations in years past have primarily emerged to accommodate the growth and prosperity experienced by the nation's medical enterprise as a whole. By contrast, today's academic medical centers find themselves caught in a much different situation in which clinical revenues, federal research grants, and government funding, components which comprise up to 75% of the total revenues of the nation's medical schools, are experiencing unprecedented volatility.

As economic pressures mount, medical school leaders, faced with burgeoning faculty, shrinking budgets, and the end of age-based retirement for tenured faculty, are also exploring ways to change how they pay faculty. Now that the financial fabric of medical schools is unraveling, funding for faculty salaries is at risk. As a result, the medical school's financial obligation to the tenured faculty member is being revised or redefined at many of the nation's medical schools.

This study was undertaken to explore how six medical schools in the Midwestern United States are revamping their faculty compensation systems to address these new financial realities. More specifically, the study attempted to determine the extent of changes six medical schools had made to their compensation structures; the portion of faculty salary which is guaranteed by tenure; and the impact the compensation plan changes had on faculty members' time commitment to, and quality of engagement in,

teaching, research, patient care, service on committees, willingness to mentor junior faculty, and willingness to assume administrative responsibilities.

Through analysis of compensation structures, data collected from questionnaires administered to medical school faculty and administrators, and from semi-structured interviews, this study provided heretofore unavailable baseline information.

Approximately 1,320 questionnaires were distributed—1,200 to faculty and 120 to administrators—at the six medical schools. A total of 422 individuals responded to the questionnaires, representing an overall response rate of 32%.

Data gleaned from the medical schools in this study indicated the six medical schools have followed the national trend in medical school compensation by revising their compensation structures to more closely align salary with performance, and to link each component of salary to a component of professional activity (teaching, research, patient care, service). Despite the more direct linkage of salary in faculty compensation plans with the achievement of productivity measures, it was the perception of both faculty and administrators that there had been no significant changes in faculty members' time commitment to, or quality of engagement in, key academic activities such as teaching, research, patient care, service on committees, willingness to mentor junior faculty, and willingness to assume administrative duties.

Despite an almost equal number of positive and negative outcomes reported as a result of the plans' implementation, the majority of the faculty respondents were accepting of the revised plan, and reported its implementation had no impact on their decision to remain at their institution.

CHAPTER I

INTRODUCTION

Background and Significance of Study

There is no escaping the reality that the marketplace is changing rapidly and that traditional academic medical centers are under siege from the government, the public, industry, and in part from within.

Charles Evarts, 1994, p. 140

Medical school leaders are concerned that institutional policies governing faculty employment and compensation do not adequately reflect the fragile nature of these revenue sources.

Robert Jones, 1997, p.7

Quite simply, if medical school faculty roles and rewards do not change, the schools will be bankrupt.

Bland & Holloway, 1995, p. 32

As evidenced by the evolving theme of the introductory citations, the nation's 125 medical schools and their affiliated teaching hospitals, collectively called academic medical centers, find themselves reeling from, and unprepared for, the dynamic and often contentious marketplace pressures that surround them. An increasing number of issues, from government regulation to uncompensated care, are making academic medical centers vulnerable on many fronts. Due to a variety of health care and economic forces converging at once, the environment of the academic medical center is in a state of disequilibrium (AAHC, 1999; Malvey & Slovensky, 2001).

The pressures emanate from an outcry from consumers and third-party payers for relief from escalating health care costs, the fact that we start the 21st century with 43

million Americans uninsured, and a distribution of physicians, geographically and by specialty, which does not meet the current health care needs of the country (Association of Academic Health Centers, 1992; Burrow, 1993; Commonwealth Fund, 2000; DeBakey, 1993, Eastwood, 1994). The restructuring of private health care markets, federal efforts to reduce Medicare and Medicaid programs, insurance company-driven price competition, changes in the sophistication and costs of biomedical research, and the competition for external research funds collectively threaten the financial survival of medical schools and their teaching hospital partners (Dickler & Shaw, 1997; Malvey & Slovensky, 2001).

These factors are significant in that they are eroding the patient care and external research dollars that together represent 75% of the total revenues that have historically funded the nation's medical schools. Any significant change in these resources will dramatically affect the academic medical centers' operating budgets and thus their ability to carry out vital teaching, research, and clinical missions (Evans, 1995; Goldman, 1995; Iglehart, 1994; Thier & Keohane, 1998; Wildenthal, 1996).

Over the past decade the health care industry, particularly the nation's largest insurance companies, has set in motion a reform of the delivery and financing of health care. This reform is recognized as a major health care paradigm shift and challenges the status quo of the health care professions, including those who teach and work at the nation's medical schools (Epstein, 1995). As noted by Evarts (1994), "there is no escaping the reality that the marketplace is changing rapidly and that traditional academic medical centers are under seige from the government, the public, and in part from within"

(p. 140). This health care paradigm shift is away from specialist, acute care, inpatient-focused activities, which predominate at academic medical centers, to a managed care, capitated-payment environment with an outpatient focus. Central to this shift, and the changes confronting academic medical centers, are the insurance industry-driven concepts of managed care and managed competition.

Through managed care, insurers attempt to contain costs by controlling how and where patients get health care services by restricting their choice of provider. The managed care system employs fewer specialists and significantly more primary care (generalist) physicians who are encouraged to keep prices low by limiting unnecessary tests, consultations and procedures, and rigorously limiting the amount of care delivered in hospitals. This is especially troubling to academic medical centers because hospitals serve as the principal setting for medical student and resident (post-M.D. trainee) clinical training (AAMC, 1995; Goldman, 1995). Costs are also controlled by restricting the physician's choice of treatment to that considered medically appropriate as documented by outcome measurements. This leaves little room for exploring a variety of treatment options, an integral component of medical student training.

Managed competition refers to the grouping of physicians and other health care providers into tight networks to compete against each other on the basis of price for the contracts noted above. The result of these changes is a health care marketplace that is increasingly price sensitive (AAMC, 1995; Iglehart, 1994; Thier, 1994). Insurance company and managed care networks seek to control their costs by negotiating discounts, which virtually eliminates subsidies for extra costs of medical teaching, research, and

indigent care. And, unlike the federal government, insurance companies are not required to make graduate medical education payments to academic medical centers on behalf of their Medicare enrollees (Blumenthal & Their, 1996; Iglehart, 1994).

In an effort to maintain their patient base and revenue streams in this new marketplace, medical schools are undertaking a number of key initiatives. First, they are restructuring, through a combination of mergers with other medical schools or teaching hospitals, purchase of the primary care practices of community physicians, or formation of large health care systems which are incorporated independent from the medical school or university (Retchin, 2000). Second, academic medical centers are also redirecting their training programs toward the training of primary care providers in obstetrics and gynecology, general internal medicine, general pediatrics, and family medicine to practice in outpatient, ambulatory settings.

Third, and most germane to this study, as economic pressures mount, medical school leaders, faced with burgeoning faculty, shrinking budgets, and the end of age-based mandatory retirement for tenured faculty, are also exploring ways to change how they pay faculty. Now that the financial fabric of medical schools is unraveling, funding for faculty salaries is at risk, and the medical school's financial obligation to the tenured faculty member is being revised or redefined at many of the nation's medical schools (Jones & Gold, 1998).

As noted by the Association of Academic Medical Colleges [AAMC] (1996), "as funding for the missions of the medical school become less secure, the demand for the mix of faculty needed by the medical schools becomes less certain" (p. 2). With that

uncertainty come questions about faculty roles and compensation structures. This study was undertaken to explore how six medical schools in the midwestern United States were revamping their faculty compensation systems to address these new financial realities. More specifically, the study attempted to determine what impact compensation plan changes had on the portion of faculty salary that was guaranteed by tenure, and on the faculty members' time commitment to, and quality of engagement in, the academic activities of teaching, research, patient care, service on committees, willingness to mentor junior faculty, and willingness to assume administrative duties.

Background

Academic medical centers have historically held a place of high prominence in America's education and health care arenas. Long considered the "cornerstone of medicine in the United States" (AAMC, 1993), the nation's medical schools and their affiliated teaching hospitals have as their primary missions undergraduate medical education (the four years leading to the M.D. degree), graduate medical education (the three to seven years of clinical training that follows the M.D. degree conducted through residency programs in the teaching hospitals), specialized graduate training of biomedical scientists, biomedical and clinical research, and patient care (AAMC, 1993; AAMC, 1997).

The academic medical centers also play a key role in society's obligation to provide health care to disadvantaged populations—the millions of Americans who are uninsured or underinsured. Although representing only 6% of the nation's acute care hospitals and containing only 18% of the nation's hospital beds, academic medical centers

provide 40% of the uncompensated health care to the nation's indigent and uninsured populations and carry 27% of all bad debt expenses from the working poor (Blumenthal & Meyer, 1996). On average, teaching hospitals each absorb over \$20 million annually in charity care costs, nearly 10 times the \$2.8 million average at U.S. acute care hospitals (AAMC, 1999; Goldman, 1995; Wildenthal, 1996).

As managed care and growing price competition in the health care marketplace push for lower costs and efficiencies of scale, the nation's medical schools and their teaching hospitals are at a distinct disadvantage in competing for patients and patient revenues due to the additional costs of teaching medical students and residents, conducting medical research, caring for people who need highly specialized medical services, and carrying an extensive charity care caseload (Epstein, 1995; Goldman, 1995, Malvey & Slovensky, 2001). It has long been recognized that the academic and social missions of teaching graduate medical trainees, conducting medical research and providing uncompensated indigent care raise the cost of care at teaching hospitals to a level approximately 45% higher than at non-teaching hospitals (Epstein, 1995).

The cost of these additional responsibilities is estimated at \$18.1 billion nationwide, and comprise about 28% of each academic medical center's total costs (Thier & Keohane, 1998). Because academic medical centers cannot compete with non-teaching hospitals on basis of price, they are largely being ignored by managed care conglomerates. As a result, they are "overbedded, under used, and in turmoil" (Kassirer, 1994, p. 1370).

Teaching requires more aggressive use of diagnostic and therapeutic services for residents to arrive at the correct diagnosis as well as additional time for patient encounters and inefficiency on the part of trainees. Because they provide highly sophisticated, specialized patient care services, and serve as referral centers for other hospitals, patients who are more acutely ill and require more complex and expensive care, (such as terminally ill, HIV, trauma or burn patients, are referred to academic medical centers. Costs increase because these patients require more intensive care, greater nursing services, an array of diagnostic tests, and aggressive treatment approaches (AAMC, 1995).

The academic missions of academic medical centers have traditionally set them apart from other private health care providers in the community, and, as noted by Blumenthal and Meyer (1996), have always "represented public goods to which society in general attaches value, but for which no adequate private market exists"(p. 202). The AAMC (1995) notes that "markets are credited with doing many things well, but rewarding the production of 'social goods'—goods that lack immediate commercial utility—is not one of them. Academic medicine, for its part, produces just such social goods—educating the future health professions workforce, discovering the new knowledge necessary for continued improvement in the quality of health care, and ensuring access to care for many patients in particular need" (p. 5).

For years insurers paid hospitals their actual costs plus a fixed percentage and physicians the customary and prevailing fees for services (which they set themselves). There was no incentive for cost containment. Costs escalated and premiums skyrocketed

until the largest purchasers of health, government, large corporations and unions, demanded that insurance companies reduce premium costs. As a result, the nation's largest health insurers—Aetna, Blue Cross-Blue Shield, CIGNA, and Prudential—developed managed care plans as a means to control costs and to direct patient flow to the lowest cost providers (Califano, 1994). In the past, academic medical centers have been able to cover the costs of research and indigent care, public goods, by charging premiums of 30% or more for their services. However, today's managed care plans no longer support such premiums. As noted by Japsen (1995), "in today's health care environment, those three distinctive, but costly, missions (teaching, research and patient care) may really be liabilities as teaching hospitals strive to adapt and compete with community hospitals that only have to focus on patient care" (p. 34).

During the past thirty years academic medical centers have experienced an unprecedented era of expansion. With expansion, however, came an increasing dependence upon patient care income generated by medical school faculty to subsidize the provision of these free public goods and services and to cover part of the costs of medical school academic programs. Over the past decade, patient care income generated by the medical school faculty, hospital contracts, and faculty research has grown to represent over 75 percent of current funds flowing into the nation's medical school. Thus, medical schools today are functioning with a surprisingly fragile economic underpinning (Evans, 1995; Jones, 1997; Korn, 1996).

In conjunction with faculty-generated patient care income, academic medical centers have long enjoyed a level of federal subsidy from Medicare and Medicaid and

other cross-subsidies that have allowed them to continue to provide these public goods in the face of declining revenues from other sources. These subsidies are now threatened. Federal government's further reductions in Medicare and Medicaid will have a significant impact on the financial health of the academic medical centers because these centers currently receive more than half of their revenue for hospitalized patients from the Medicare and Medicaid programs (Mulvey & Slovinsky, 2001; Thier & Keohane, 1998).

According to Blumenthal and Meyer (1996), "the marketplace has caught up with academic medical centers"(p. 200), and managed care organizations have made it clear they are not interested in paying for the public goods (i.e., research and indigent care) produced by academic medicine. The health care marketplace now allocates resources based upon low costs, and in the process, is effectively eradicating the cross-subsidies upon which medical schools have built their financial foundations. This dramatic change is placing tremendous stress on medical schools to identify new and more stable sources of funding, and to identify ways to reduce costs to bring expenses more in line with revenues (Iglehart, 1997). A key component of these cost cutting measures has been a review of the faculty compensation structures at many of the nation's medical schools.

Historically the teaching, research and indigent care components of the medical schools' mission have been money-losing propositions and the costs incurred for these missions were covered by an intricate set of interacting public and private revenue streams. The federal government has long recognized that training novice physicians entails added costs. Through the Medicare direct cost of medical education and indirect cost of medical education programs, the federal government has explicitly subsidized the

costs of the graduate medical education residency programs conducted in the academic health center teaching hospitals.

In addition to these special education-related subsidies from Medicare, part of the costs have been borne by grants for medical research activities awarded by external agencies, such as the National Institutes of Health. Costs have also been covered by funding provided by the Veterans Administration hospitals that are primarily staffed by the nation's medical school faculty. However, these external funds have never been sufficient to fund completely the missions of the medical school.

The majority of the funding gap at medical schools has been covered by the clinical revenue generated by the full-time medical school faculty who provide patient care services at the teaching hospitals. For the past thirty years the academic medical centers have been able to shift the balance of the costs for their research, medical education, and charity care missions to fully-insured private patients and their insurance companies which, historically, paid physicians at prevailing rates in the region. Costs were also shifted to Medicare and Medicaid whose stable payments encouraged and rewarded an increase in clinical practice (Blumenthal & Thier, 1996; Epstein, 1995; University Hospitals Consortium, 1995).

Over time, medical schools and the teaching hospitals have become heavily leveraged using this combination of subsidies and cross-subsidies from federal Medicare and Medicaid payments, research funds, and faculty-generated patient-care revenues. At the present time, almost 75% of the operating revenues of the nation's medical schools are directly linked to the clinical practice and research activities of the medical school faculty

(Krakower, Ganem, & Jolly, 1996). Yet, as noted by Iglehart (1995), "despite their overall success, medical schools are operating on a surprisingly fragile economic foundation" (p. 407).

Today the income streams comprising the fragile economic foundation of academic medical centers are threatened by changing public policy and the subjection of health care to more insurance company managed care regulation and growing price competition (Mulvey & Slovensky, 2001). The government is pushing to reduce the national debt by reining in costs of Medicare and Medicaid, thus threatening the subsidies for graduate medical education and coverage for charity care. This reduction is having a far-reaching impact on academic medical centers. Since the Balanced Budget Act took effect in 1996, the academic medical center teaching hospitals have experienced an average drop in operating margins of 86%, from \$13.2 million to \$1.8 million, primarily due to changes in Medicare reimbursements. It is projected these losses will be compounded to reach an average annual revenue loss of \$12.3 million per hospital by 2002 (Bourne, Robertson, Trachtenberg, & Burnett, 1999; Korn, 1996).

In addition, insurance company health maintenance organizations (HMOs) have experienced significant losses over the past two years which have resulted in their passing along insurance and HMO premium increases to employers, who in turn shift the growing premium burden to employees. As employers shift the premiums to employees, the number of people covered by insurance decreases as employees decline employer-sponsored insurance. It is estimated that approximately 400,000 individuals are dropped from the rolls of the medically insured for each percentage point increase in premiums

(Bourne, et al, 1999). This increased burden to treat the growing number of uninsured will fall to the academic medical center teaching hospitals, further impacting their operating expenses.

Academic medical centers are also impacted by plummeting insurance company managed care fees paid to physicians and hospitals, and by HMOs forcing physicians to accept payments that are half what they once received for the same service. HMOs are also channeling patients away from teaching hospitals and their inpatient-oriented, high-cost specialty care, which not only affects clinical revenue but reduces the number and mix of patients available for the clinical training of novice physicians and for research studies.

Moreover, academic physicians have long depended on referrals from community physicians, many of whom, due to their obligations to managed care arrangements, cannot refer to non-plan physicians and hospitals. This development has shifted patients and revenues even further from the medical schools and teaching hospitals. And lastly, another key revenue component, externally-supported research funding, is progressively becoming more difficult to obtain and requires more cost sharing using institutional funds than in times past (AAMC, 1995; Blumenthal & Meyer, 1996; Wildenthal, 1996).

The combined effects of reduced payments from private payers, Medicare, and the Balanced Budget Act are estimated to generate unsustainable losses and threaten the essential support that the clinical enterprise has provided to the teaching, research, and charity care missions of the nation's medical schools. A task force of the Association of American Medical Colleges (1996) noted these factors "have the potential to unravel the

traditional financial basis upon which academic programs have been constructed and long depended" (p. vii). The academic medical centers are already experiencing fewer admissions, fewer procedures, and fewer referrals to specialists.

As a result, academic medical centers are finding themselves caught in a downward financial spiral caused by the radical and ongoing changes in the sources of medical school funding (Blumenthal & Meyer, 1993; Blumenthal & Meyer, 1996; Goldman, 1995; Iglehart, 1995). This spiral has become so acute that Bourne et al. (1999), predict:

If reimbursement to academic medical centers continues to decline in real terms, and if the Balanced Budget Act payment reductions are implemented, teaching hospitals will face increasingly negative and unsustainable margins.

As a result, the clinical enterprise will be unable to continue to support the essential social goods associated with medical education, leading edge research, and charity care (p. 8).

These dramatic funding shifts, the channeling of patients away from the more expensive academic medical center teaching hospitals, and the reduced demand for the specialist and sub-specialist services historically provided by medical school faculty are impacting every component of the medical schools' missions. As noted in the strategic plan of the Association of American Medical Colleges (1995), "each of its [academic medicine's] missions faces wrenching changes during this period of transformation...for medical schools and teaching hospitals to succeed or even survive in this milieu will

require substantial changes in their programs, activities, and structures over the coming years..." (p. 1).

Statement of the Problem

One substantial impact of the dynamics produced by shifts in medical school funding and the urgent need for medical schools to reduce costs has been a movement to explore changes to the medical schools' faculty compensation structures/plans. As noted by Jones (1997), "medical school leaders are concerned that institutional policies governing faculty employment and compensation do not reflect adequately the fragile nature of these revenue sources" (p. 7).

Medical school faculties have grown exponentially over the past four decades, initially as a response to federal mandates to produce more doctors and advance medical science, but more recently because faculty could support their own salaries through research grants and patient care revenues. Medical school faculty historically have generated revenues to support a large majority of their salaries, with the medical school providing only a portion of that salary as "base." However, since those salaries are dependent on outside funding sources, such as patient care income or research grants, they are increasingly at risk in today's environment. The crux of this situation is succinctly stated by John V. Lombardi, President of the University of Florida, (1996):

Medical schools failed to consider the consequences when, years ago, they began hiring more and more clinical professors, granting them tenure and paying them huge salaries because of the huge revenues they brought in from patient care.

Now those revenues are stagnating, but the schools are stuck paying the high salaries of tenured clinicians (p. 1).

This decline in resources for faculty salaries is severely affecting many medical schools. Bodner (1997) notes that under-funded tenured faculty who are also highly compensated "have created a significant overall financial burden, even though that burden does not amount to 'financial exigency' as that term is commonly used in tenure rules" (p. 967).

In recognition of the effect of changing health care economics on faculty employment and compensation policies, the Association of American Medical Colleges held its first conference *on Tenure, Compensation, and Career Pathways* in 1996. The Association's leadership noted, "as funding for the missions of the medical schools is less secure, the demand for faculty becomes less certain." The Washington, D.C. conference was attended by the author and had as its purpose provision of a forum for discussion, and re-examination of the faculty employment relationship and the impact of current restructuring, realignment, and reengineering that are the new imperatives. Representatives from various medical schools discussed how their institutions were working to define the financial guarantees associated with tenure, to modify faculty compensation structures to link salary to job performance, and to establish accountability.

In consideration of these many financial pressures facing the nation's medical schools, the obvious questions become: 1) How will these changes affect the way medical school faculty are compensated? 2) What impact will changes in faculty compensation structures have on the portion of faculty salary guaranteed by tenure?

3) What impact will changes in compensation structures have on faculty members' time commitment to and quality of engagement in the academic activities of teaching, research, patient care, service on committees, willingness to mentor junior faculty and willingness to assume administrative duties?

Purpose of the Study

There is no question that health care and economic changes are occurring and medical schools are being required to change their faculty personnel policies to accommodate these changes. Numerous divisions within the Association of American Medical Colleges, the Association of Academic Health Centers, and an extensive number of scholars within academic medicine have studied the various financial, physician workforce, faculty practice, and teaching hospital strategic developments undertaken by medical schools. However, there are no current studies present in the scholarly literature which have investigated how this spiraling financial decline is affecting medical school faculty compensation structures.

Through their responses to the 1997 and 1999 AAMC survey questions on promotion and tenure, numerous medical schools acknowledged they had changed, or were in the process of changing, their faculty compensation structures (AAMC, 2000; Jones & Gold, 1998). Changes in medical school faculty compensation structures to adapt to financial realities and the resultant impact on faculty salaries and commitment to academic responsibilities are worthy of further study. The purpose of this study was to ascertain what changes in medical school faculty compensation structures had occurred at six medical schools in the Midwestern United States since 1997, and more specifically,

what impact the changes had on variables such as the portion of salary guaranteed by tenure, or a faculty member's time commitment to, and quality of engagement in, teaching, research, patient care, service on committees, willingness to mentor junior faculty and willingness to assume administrative duties.

Research Questions

The research questions of this study proposed to examine, describe, and explore what changes a sample of medical schools had made to their faculty compensation plans. Specifically, the study sought to answer the following questions:

1. What changes had six medical schools in the midwestern United States made to the plans governing the compensation of medical school faculty?
2. What impact, if any, did the compensation plan changes have on the portion of faculty salary guaranteed by tenure?
3. What impact, if any, did the compensation plan changes have on faculty members' time commitment to, and quality of engagement in, teaching, research, patient care, service on committees, willingness to mentor junior faculty or willingness to assume administrative responsibilities?

Definition of Terms

1. Academic medical center--the combination of a medical school and its affiliated teaching hospitals.
2. Academic medicine -- The work of medical schools, teaching hospitals and their faculty members and staffs to train the nation's physician

workforce; conduct biomedical research and provide essential, and often unique, health care services.

3. Academic tenure -- a principle formulated by the American Association of University Professors which states faculty are entitled to freedom to teach, conduct research, and participate in extramural activities outside the institution without fear of censorship or adverse political pressures. Tenure provides that appointments are to be continuous until retirement, and are subject to termination only for adequate cause, financial exigency, program discontinuance, or institutional merger or affiliation.
4. Association of Academic Medical Colleges [AAMC] -- represents 125 accredited U.S. medical schools; the 16 accredited Canadian medical schools; and 400 major teaching hospitals. The AAMC represents 87,000 faculty members; and the nation's 67,000 medical students and 102,000 residents.
5. Basic sciences – The scientific disciplines of anatomy, biochemistry, cell biology and immunology, physiology and pathology taught to medical students during the first two years of medical school.
6. Clinical sciences – The disciplines of family medicine, general internal medicine, geriatric medicine, neurology, obstetrics and gynecology, ophthalmology, otorhinolaryngology, orthopaedic surgery, pediatrics, and surgery taught to medical students during the third and fourth years of medical school and during the post-M.D. training years of residency.

7. **Direct cost of graduate medical education** -- "payments through the Medicare program for the added direct costs of physician training, including salaries of trainees and the faculty who supervise them; classroom space; salaries of administrative and clerical staff in the residency programs; and institutional overhead" (AAMC, 1996, p. 15).
8. **Indirect costs of medical education** -- "a payment adjustment provided to teaching hospitals by the Medicare program in recognition of the severity of illness of patients requiring the specialized services and treatment provided at teaching hospitals, and the additional costs associated with the training of residents" (AAMC, 1996, p. 17).
9. **Medicaid** – A 1965 federal program which provides payments to states to help pay for the health care costs of welfare recipients, and persons in programs for aid to dependent children, the blind, and the permanently disabled.
10. **Medicare** – A 1965 federal program which covers hospitalization expenses for individuals over 65.
11. **Relative value units** – Units of measurement given to each clinical procedure or other unit of clinical service which are then included in the costs billed to Medicare.
12. **Teaching hospitals** -- The hospitals that serve as the primary teaching sites for the clinical education of medical students, residents, post graduate fellowship training programs, and other allied health professional students.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Three areas of scholarly research are relevant to this study of changes in medical school faculty compensation structures and the implications for the financial guarantees linked to tenure. First, the literature examining the evolution of faculty personnel policies, appointment status, and tenure and promotion policies in the nation's medical schools is highlighted to provide a foundation for this study. Next, the literature surrounding the growing national debate about tenure, and the resultant studies of modifications of faculty employment at higher education institutions other than medical schools, is assessed to provide a context in which changes in medical school employment practices may be placed. Finally, the literature relative to professionalization and the sociology of medicine that examines the role and dominance of the medical profession and the adaptations it has undergone in response to public policy, social policy, and private sector market forces is reviewed to provide a theoretical context for the study.

The Evolution of Medical School Personnel Policies

The nation's colleges of medicine have a long history of adapting faculty personnel policies to accommodate the evolving structure of the colleges and demand for faculty. Tenure in medical schools is a relatively new phenomenon and has been slow in developing. Tenure evolved in medical schools primarily as the schools became more closely associated with the American university system, and as the control of medical

education shifted from private physicians to the medical schools' full-time faculty. Prior to World War II, medical school faculty consisted of part-time "volunteer" faculty who were primarily clinicians who earned the majority of their income from the private practice of medicine and were not dependent upon the university for their economic survival. Thus, at that time, "tenure was not a subject of interest nor contention" (Petersdorf, 1984, p. 920).

Following World War II medical schools and their faculties experienced explosive growth as the government committed to massive expenditures for health care, hospital construction, disease research, research training of PhDs, medical education and specialty training. During this same period, the growth of medical school affiliations with Veterans Administration hospitals resulted in an increase in full-time faculty positions in clinical departments and expanded numbers of residency positions (Lewis & Sheps, 1983; Ludmerer, 1985).

Also, during this period medical schools became more integrated into the academic system of their parent universities and adopted the same university-wide promotion and tenure guidelines as other colleges within the university. For the first time faculty physicians found themselves subjected to the scrutiny of tenure committees and immersed in the university's bureaucratic structure (Bland & Holloway, 1995; Lewis & Sheps, 1983; Ludmerer, 1985).

Some changes in academic medical centers have mirrored those occurring in other segments of higher education, especially increases in the professoriate (Rubin, 1998). The most striking changes in academic medicine during the decades of the 1960s, 1970s,

and 1980s were the increase in the size of the medical education enterprise and the increase in the proportion of funds coming from the clinical practice activities of the medical school faculty. During the 1960s and 1970s the number of medical schools increased by almost 50% and there was a five-fold increase in full-time faculty. This period also saw a doubling of the number of medical students, and a tripling of the number of residents who were pursuing graduate medical education in specialty and subspecialty areas. Revenues supporting medical school operations grew from \$436 million to \$6.5 billion during these two decades, representing an annual growth rate of 14.5 % (Jones, 1997). As suggested by Evans (1995), "all in all, this era brought growth never seen before...but also never to be seen again" (p. 15).

This growth stemmed primarily from federal government pressures to increase the number of physicians, growth in federal investments in biomedical research, and pressures to handle "a tidal wave of demand for clinical service resulting from the 1965 Medicare and Medicaid legislation" (Smythe & Jones, 1982, p. 333). Medicare provided federal health insurance for the elderly and Medicaid provided federal and state aid for the medically indigent. Prior to the enactment of these programs, medical services provided by clinical faculty members to groups of elderly and medically-indigent patients were largely not reimbursed (AAMC, 1995; Jones, 1997). This capacity for greatly expanded reimbursements for clinical services contributed to extraordinary growth for medical schools and teaching hospitals.

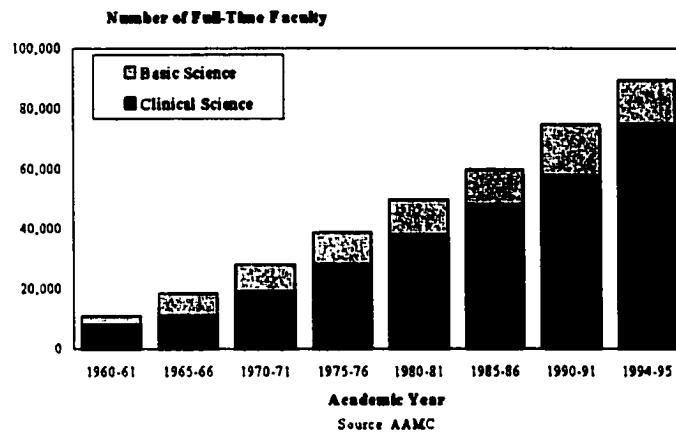
The growth in faculty during the 1980s far surpassed the growth in medical student enrollment. From 1970 to 1980 the basic sciences faculty (those teaching

anatomy, biochemistry, microbiology, pharmacology, and physiology) and clinical faculty (those faculty providing patient care as well as teaching and research) increased by 106% and 167%, respectively, while medical student enrollment increased by only 41%. Revenues during this period grew as a result of continued expansion of medical school faculties and increases from clinical services and external research at an annual rate of 12.7% (AAMC, 1996).

The growth which began mainly as a response to federal mandates to produce more doctors and advance medical science, has more recently been "driven by an opportunistic expansion of the research and clinical enterprises to a level much beyond that required to support medical education"(Jones & Sanderson, 1994, p. 772). While the mission of medical schools continues to be teaching, research, and patient care, the make-up of these components has changed over the last 30 years. Bland and Holloway (1995), noted in the 1960s that "medical schools were funded as schools--their primary purpose was to educate young doctors and perform research. Patients were seen as educational and research resources ... the clear focus of the enterprise was on education and research" (p. 31).

As indicated in Figure 1, this trend of increasing the size of the clinical faculty continues, with the number of full-time clinical faculty increasing from 11,447 in 1965 to 90,017 in 1995.

Figure 1



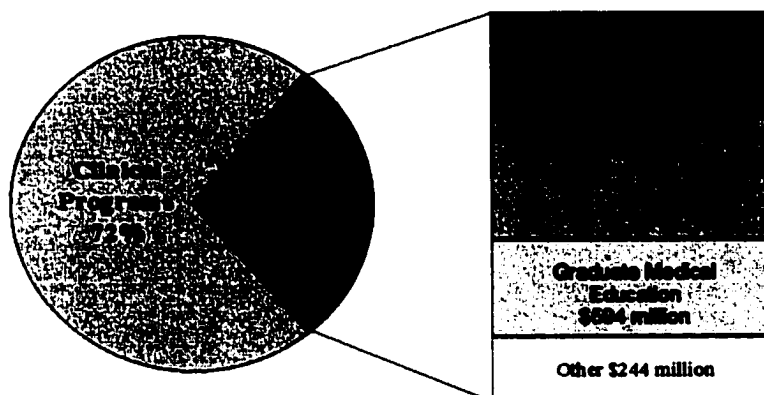
Over the past thirty years the mix of medical school funding has changed significantly as well. From the period 1960 to 1990 combined support from local, state and federal government dwindled from 71% of total revenues in 1960 to 38% in 1990. For this period, federal government support alone dropped from 54% to 22% (Evans, 1995). As a result of these shifts, colleges of medicine have become increasingly dependent upon faculty practice income and research funding to support this enormous enterprise. Nationwide, revenues from these two sources have grown from \$436 million in 1960 to \$31.4 billion in 1999 (Krakower, Coble, Williams, & Jones, 2000). Medical services provided by medical school faculty contribute the largest single source of funding at 51%, a dramatic increase from a level of 6% in 1960, while revenues from federal grants and contracts provide an additional 18.8%. Thus, by 1999, over 79% of medical school operating revenues for research, teaching and service programs were directly linked to these two activities (Krakower, et al, 2000).

As noted in Figure 2, clinical revenue is a key component of the education financial base. Of the \$13.7 billion collected by colleges of medicine faculty practice plans during 1999, 28% or \$2.4 billion was reallocated to support academic programs in teaching and research (Krakower, et al, 2000). As clinical income and hospital revenues decline, medical school leaders face a new imperative to look at each program—medical student education, graduate biomedical education, research—as separate self-sustaining enterprises. This is leading medical schools to develop new resource allocation models and to explicitly track subsidies for various academic programs.

Figure 2

Faculty Practice Plan Revenues (1993)

Source: AAMC



Decades-long financial dependence upon clinicians and researchers has led to differentiation of faculty roles and appointment practices which strain traditional promotion and tenure policies imposed upon colleges of medicine by their parent universities. Faced with the need to reward and retain clinical faculty for roles "which are important to medical schools but do not even appear on the university scale of academic

values, e.g. making hospital referrals, supervising residents, and performing clinical trials" (Bickel, 1991, p. 249), colleges of medicine since 1970 have deviated from traditional tenure and promotion policies.

These deviations are increasing as today's volatile market pressures find medical schools scrambling for ways to survive financially. As a result, tenure policies at medical schools are under intense scrutiny and reexamination. As indicated by Rubin (1998), tenure within medical schools "deserves special attention, for what happens in these institutions may be a bellwether for all institutions of higher education (p. 188)...and have far-reaching implications for administration, academic medical center-university relationships, higher education, and the public in the years ahead" (p. 200). Rubin further notes that "economic forces are testing the uniqueness of academic medical centers at the same time that the basic conceptual framework of the medical professionals within these institutions is being destabilized...indeed, nowhere else in the tenure debate have issues been framed so starkly" (p. 200).

Of the 125 accredited medical schools in the United States, 120 have tenure systems, five have no tenure system, and another six schools limit the award of tenure to basic science faculty (Jones & Gold, 1998). No medical school has abolished tenure. However, more than 70% of chairpersons of basic science departments reported that it was becoming increasingly more difficult to attain tenure (Mandel, 1997). These figures alone cannot convey the financial challenges and the major changes to personnel policies that have occurred in the nation's medical schools over the past two decades. From the period 1983 to 1993, the percentage of basic science faculty either tenured or on the

tenure track had declined from 77% to 72% while the overall number of basic science faculty had increased by 29%. The same pattern occurred with the percentage of clinical faculty either tenured or on tenure-track declining from 59% in 1983 to 47% in 1993, yet the overall number of clinical faculty doubled during this decade. (Jones and Sanderson, 1994).

In an attempt to chronicle these significant changes, six national studies of medical school faculty promotion and tenure, and other employment policies have been conducted over this two-decade period. Spellman and Meiklejohn's 1977 study polled medical college deans regarding the advantages and disadvantages of academic tenure for clinical faculties, including an appraisal of its financial burdens, the utility of modified or alternative systems, and the abolition of tenure. They found that deans favored retaining tenure "in some modified form" and noted that over 58% of the schools had formally adopted an alternative faculty title or designation for full-time faculty hired on the non-tenure track. They concluded that "medical schools will be forced sooner or later to fix a ceiling on the size of the tenured faculty or risk compromising institutional solvency...the major and imminent threat to the tenure system is financial exigency" (p. 631).

In 1982 Smythe, Jones, and Wilson reviewed the policies of eight medical schools which were involved with significant changes to their appointment policies, and confirmed the findings of Spellman and Meikeljohn that external pressures were forcing changes in faculty appointment and promotion policies. The rapid growth of clinical faculties whose support was derived primarily from practice income, the large number of wholly, grant-supported basic scientists, competition for extramural research, and rising

costs of sophisticated equipment were cited as challenges to medical school leadership. The academic leaders were challenged to find mechanisms to reward and retain those faculty who specialize in patient care and upon whose activities their institutions were increasingly dependent (Jones & Sanderson, 1994; Smythe, Jones & Wilson, 1982).

In 1983 the AAMC published comprehensive data on medical school faculty appointment and tenure policies, derived from a survey conducted by the AAMC Group on Business Affairs. The survey concluded that colleges of medicine were providing alternative forms of appointment through annual and multi-year contracts for non-tenure track faculty, and through inclusion of various appointment tracks. Such tracks included the physician-scientist who taught and devoted the remainder of time to research, the clinician-scholar who taught and spent the remainder of time in direct patient care, and the full-time clinical track for those faculty who devoted 5% time to teaching and 95% time to patient care.

Jones (1987) later expanded upon this 1983 survey information to determine the frequency of clinician-educator faculty tracks in U.S. medical schools, the titles given, and any other special features of this track. Jones found that among the 126 schools in operation at that time, eight had no tenure system, and six had tenure for basic science faculty only. Of the remaining 112, he found 61 (55%) had a non-tenure, clinical track, with the majority modifying the title by a prefix of "clinical" such as clinical assistant professor of medicine.

In 1991, Bickel reported results of a 1989 AAMC survey, which contained responses from 113 of the 126 medical schools. The data indicated that over three-

fourths of the medical schools were redefining their faculty appointment and promotion practices. Primarily, Bickel found the schools were reviewing tenure in relation to financial guarantees of tenure, adding specificity to promotion and tenure guidelines, extending the length of the probationary period, and attempting to improve the mentoring process for junior faculty regarding faculty tracks and the promotion process. Bickel found that in many cases the use of multiple tracks was reported to have caused confusion with university promotion and tenure committees which struggled to understand the role of clinical education and primary care in the set of traditional academic values of teaching, research, and service. As insight into future issues, Bickel opined that these findings "question what tenure can mean in a system that has multiple tracks and uncertain financial guarantees ... and lead many university faculty, to whom tenure is essential, to be concerned that the meaning of tenure is being worn away by medical schools' 'tinkering' with it" (p. 255).

Jones and Sanderson (1994) received responses from 137 of the 142 U.S. and Canadian medical schools, operating at that time, to their inquiry into tenure policies. The study found that tenure systems "remain entrenched in U.S. and Canadian medical schools, but the percentage of clinical faculty on tenure track appointments had decreased from 59% in 1983 to 47% in 1993" (p. 773). They also noted that the number of medical schools offering the clinical educator track had increased from the 61 reported in Jones' 1986 study to 80 by 1993. The most dramatic change noted from the earlier studies was the number of schools with clearly-defined policies limiting the financial guarantees of

tenure to the component of salary from university/state funds, or a "base salary" which excluded clinical practice income or research grant income.

The study also noted an increase in the development of non-tenure track appointments to accommodate patient care and clinical teaching needs. Medical schools also reported alterations to the tenure probationary periods by either lengthening the period or allowing faculty to transfer to a non-tenure track for a period of time, with eventual transfer back to the tenure-track. Another interesting finding of the study was the increase in the number of schools that had written into their policies a mechanism to avoid the historically strict "up-or-out" system for those denied tenure by allowing some faculty to continue in renewable-term appointments.

In 1998, Jones and Gold reviewed data from a 1997 AAMC survey on changes underway in faculty appointment and tenure policies in U.S. medical schools. The intent of the review was to focus on two policy issues that had emerged as areas of interest among the nation's colleges of medicine: policies governing tenure and its guarantees; and policies governing special faculty tracks for clinical faculty primarily involved either in teaching, teaching and patient care, or patient care.

In reviewing responses from all 125 U.S. medical schools, Jones and Gold (1998) found that faculty evaluation systems and faculty compensation systems were the areas most likely to have undergone policy changes. Other areas of policy change were noted to be new faculty tracks and career pathways, lengthening the tenure probationary period, and redefining or clarifying the portion of salary that is defined by tenure—the guaranteed salary.

A 1998 study by Jones and Gold confirmed the 1994 study results that the majority of medical schools link tenure status with some form of financial guarantee. Of the schools responding, Jones and Gold found 29% defined the financial guarantee as "total salary/compensation regardless of source of funding, 28% guaranteed only that portion from university or state funds, and 19% guaranteed a base salary" (p. 214). They further confirmed that one half of the schools surveyed had modified, or were contemplating modifications to, their faculty compensation systems.

While Jones and Gold note that the survey form did not gather information about the current structure of faculty compensation systems, they did gather enough information by telephone to determine that plans were dividing salaries into components and assigning financial guarantees to some parts of the compensation. In recent personal communication, Jones conceded that, based upon the preliminary information in his study, more complete information is needed about the actual changes to college of medicine faculty compensation systems. He notes that "colleges of medicine have served as the bell-weather of most of the strong issues affecting higher education over the years...and are like Bodner stated, 'likely to be in the vanguard of academic institutions challenging whether tenure protects full salaries' (1997, p. 967)."

In addition to the scholarly studies, the academic medicine literature also contains descriptive articles reporting on the implementation of faculty tracks at various colleges of medicine. Kelley and Stross (1992) traced the implementation of multiple faculty tracks since 1977, and their correlation with academic success at the University of Michigan, Department of Medicine, while Lovejoy & Clark (1995) discussed the

experience and challenges of promotion of clinical teachers at Harvard Medical School. The most cited article is that of Wigton and Waldman (1993) which describes the implementation and refinement of the innovative faculty appointment system at the University of Nebraska Medical College. Others describe the dilemmas caused by the use of multiple tracks in defining standards that encompass the diversity of medical school faculty (McHugh, 1994; Rothman, Poldre, & Cohen, 1989).

These studies and articles chronicle twenty-five years of medical school adaptation of faculty personnel policies to mesh with the economic realities that have confronted them over that period. Primarily, the schools have changed their appointment and promotion policies to allow for an increased number of clinical faculty whose primary responsibility has been patient care and teaching. According to Jones (1997), approximately 90 of the 125 medical schools now have clinician-educator tracks with distinctive promotion criteria and multi-year contracts instead of tenure.

Today, managed care-driven market forces and changing public policy severely threaten the entire financial foundation of the nation's medical schools. This is resulting in a fundamental restructuring of the traditional academic roles of medical school faculty in academic medical centers across the country. As noted by Bland and Holloway (1995) "the primary forces behind these changes are not benevolent, and the reasons for changing are not high minded. Quite simply, if medical school faculty roles and rewards do not change, the schools will be bankrupt" (p. 32).

The changes in academic medicine personnel policies have not gone unnoticed by the American Association of University Professors. As noted by Robert O'Neil (1996),

chair of the AAUP Committee A on Academic Freedom and Tenure, “anyone familiar with the realities of academic medicine appreciates the stress and anxiety that current fiscal pressures impose. Among the expectations and assumptions that may require re-examination are, of course, faculty personnel policies” (p. 1222). O’Neil also conceded, “even the staunchest proponents of tenure recognize the special tensions in the world of academic medicine” (p. 1222).

In a draft paper entitled “Tenure in the Medical School” (1996), prepared by Dr. O’Neil’s subcommittee and published for comment in the January-February edition of *Academe*, the group had two stated hopes in mind: “one, that the commitment to academic freedom would remain inviolable within medical education; and two, that means could be found to reconcile that commitment with the harsh realities academic medicine faces in the closing years of the century” (O’Neil, 1996, p. 1222). Although the paper was never voted upon, and thus never formally adopted as an expression of official AAUP policy, the paper did represent, according to White (1998), “the individual views of some of the AAUP’s most enlightened and most experienced members on the changing meaning of tenure in academic health care centers” (p. 12).

The report was forward thinking in its recognition of the crucial differences between medical schools and other parts of the university and noted “the volatility of the environment in which medical schools function—a condition certain to affect faculty personnel policies in ways at variance with established norms such as those promulgated by the AAUP and other faculty groups” (p. 42). The subcommittee noted that:

The enormous diversity of medical school programs and of the variety of faculty

who teach in them suggests certain kinds of [medical school] appointments were not foreseen by, and in any case not intended to fall within, the ambit of the [AAUP] 1940 *Statement*. In contrast to academic faculty of the sort envisioned by that statement, academic physicians deal directly with the general public (patients) in an income-producing environment. Their relationship to the institution with which they are affiliated is therefore fundamentally unlike that of the full-time teachers and investigators who are described in the statement (p. 43).

And interestingly, the report concluded by recognizing that “no policy adopted by the AAUP with respect to the academic culture of medical schools can command the adherence of those schools without taking into account the nature of the medical enterprise” (p. 43). However, the group did agree that:

after giving all due allowance to the specific realities of the teaching and research environment in medical schools, we do not believe that they are so peculiar as to warrant placing all faculty in such schools beyond the academic pale, that is, outside the generally accepted standards set forth in the 1940 *Statement* and derivative policies of this Association (p. 44).

Although the AAUP group noted that it was not uncommon in medical schools to have tenure guarantees attached to only 20 or 30 percent of a faculty member's appointment and to require that faculty member to generate the balance from external patient care or research dollars, they registered concern with the way such financial assurances were being more narrowly defined by today's medical schools to apply only to hard money (state funds) in the tenure line. Given this scenario, the committee noted

there would seem to be "a very real question as to precisely what tenure means under conditions that protect only a portion of the faculty member's income" (p. 43).

This question is exactly one with which colleges of medicine are struggling. As was noted by AAMC executive Robert Jones at the 1996 AAMC Conference on Tenure, Compensation, and Career Pathways, "we don't have personnel systems that recognize this new reality...systems that recognize that we pay you such high salaries due to market forces, and if the market goes south, we need to adjust what we pay you" (Magner, 1996, p. A18). In more recent comments, Jones (1997) predicted that "tenure in academic medicine in the coming years will be associated with more limited financial guarantees and compensation structures that require faculty members to share risk with the institution for the success of revenue-generating activities" (p. 7).

As medical schools find themselves in financial jeopardy and "saddled with too many faculty members who are not generating enough revenue to support their departments" (Mangan, 1996, p. A 16), academic leaders are searching for ways to change how they pay faculty. They are also struggling with "whether they can legally cut the salaries of clinical professors if changes in the health care market make their work less profitable" (Magner, 1996, p. A 18). To address these questions, the AAMC held a separate conference in January 1997, to review the legal issues in faculty tenure and compensation. This conference, attended by the author, included active discussions on consistency in administering compensation and benefits, and such sensitive issues as faculty salary reductions.

Despite these recent AAMC activities, and various articles about the changes confronting academic medical centers in *The Chronicle of Higher Education*, there is no current comprehensive scholarly study investigating how these financial changes are currently affecting medical school faculty compensation structures. The timeliness of this study is reiterated by Robert Jones, Ph.D., Associate Vice President, Association of American Medical Schools... "I envision your project as providing valuable perspective to deans of medical schools, many of whom are still struggling with their faculties to design compensation arrangements that honor tenure and institutional commitments, yet reflect the financial uncertainty that accompanies the academic medical enterprise" (R.Jones, personal communication, July 27, 1998). The purpose of this study was to contribute to the scholarship generated to date by investigating changes to medical school faculty compensation structures and the changes in policies defining the portion of faculty salary guaranteed by tenure.

National Debate on Tenure

Concurrent with the discussions in academic medicine relative to medical school faculty compensation structures and the financial guarantees associated with the award of tenure, higher education scholars are locked in debate about the pros and cons of tenure for the university professorate. Distinguished higher education scholar Richard Chait (1997) expresses the depth of the debate by noting:

Tenure has become the academy's version of the abortion issue—a controversy marked by passion, polemics, and hardened convictions. The often shrill debate situates tenure as either indispensable or indefensible, as either the bulwark of

academic freedom and economic security or the bane of institutional flexibility and accountability (p. B 4).

A myriad of factors have contributed to the focus on tenure. Abolition of the end of mandatory retirement for tenured faculty, which changes the concept of a lifetime job, and the public outcry for greater accountability for publicly-financed education have led state legislatures and university governing boards in many states to raise questions about the terms of tenure. However, as noted by Holden (1997), "The main trigger is economic: stagnant or shrinking university budgets" (p. 24). Higher education's financial problems have become so constant and widespread that many institutions are running out of options to balance their budgets.

This economic reality is compounded by public perceptions that higher education costs too much and that tenure protects unproductive teachers.

Persistent financial problems facing higher education have resulted in downsizing and consolidation of programs. For instance, the state of California cut \$341 million from the budget of the University of California system between 1990 and 1994, while New York slashed \$200 million from the annual operating budget of the State University of New York between 1988 and 1994 (Holden, 1997). In addition to financial issues, institutional leaders also find themselves constrained by tenure when major scientific and technological innovations require expansion in new fields, such as computer science and molecular biology, and the hiring of new faculty in those fields. Unless the university redefines its mission the tenure system makes it impossible for a university to offset new hires by downsizing overstaffed or outmoded departments (Fischer, 1997).

The modern concept of tenure was shaped by three events in the nineteenth and early twentieth centuries. First, the exposure of American educators to the German university introduced the concept of a faculty member's freedom of research and instruction. Second, the enactment of the Morrill Act in 1862, which made public lands available for the establishment of land-grant colleges, led to a dramatic increase in the number of college and university faculty members who were state government employees with elaborate employment rights under state law. It was in the land-grant colleges, the University of Wisconsin in 1870 and Cornell University in 1880, that the professorial rank was subdivided into assistant, associate, and full professor and codified procedures were developed for advancement from one rank to another. It was also during this period that the concept of "probationary service" prior to advancement to a tenured rank and the "up or out" rule at the end of the probationary period were adopted (White, 1997).

The third defining event was the Ross case in 1900 and other faculty termination cases arising around the same time period. Ross, a tenured professor of economics at Stanford University, was dismissed by the President at the insistence of a university trustee because of his advocacy of populist economic policies. This event "captured the attention and imagination of the nation's media, who seized upon the incident as a parable of the fate of liberal professors in institutions dominated by the moneyed class" (Metzger, 1973, p. 139). These termination cases led faculty rights proponents to conclude that academic freedom was threatened by presidents, trustees and other powerful people; that tenure did not adequately protect academic freedom because tenured appointments could be terminated at the whim of presidents and governing

boards; and no effective mechanism existed for investigating alleged abuses of academic freedom. (Metzger, 1973; White, 1997).

In the United States the principles of tenure were first formally enunciated in 1915 when scholars banded together to form the American Association of University Professors which issued its "Declaration of Principles: Academic Freedom and Tenure." These principles have been amended and reinterpreted in formal statements in 1925, 1940, and 1970. In the classic formulation of tenure by the AAUP in 1915, and restated and expanded in 1940, tenure provided freedom to the faculty to teach and conduct research without fear of censorship or adverse political pressures, and freedom to speak and write outside the institution on subjects beyond the person's area of study. It also included a "sufficient degree of economic security to make the profession attractive to men and women of ability" (AAUP, 1977, p. 2). In 1971, the definition of tenure was further clarified by the AAUP and Association of American Colleges to be "an arrangement under which faculty appointments in an institution of higher education are continued until retirement for age or physical disability, subject to dismissal for adequate cause or unavoidable termination on account of financial exigency or change of institutional program" (AAUP/AAC Commission on Academic Tenure, 1973, p. 256).

Whatever the exact definition of tenure, there have been periods of opposition to tenure. Tenure was cited as a possible culprit for the widespread campus unrest during the 1960s, with reports from the Scranton Commission, the American Council on Education, and the U.S. Department of Health, Education, and Welfare each separately calling for reevaluation of tenure. (Chait & Ford, 1982). As noted by Metzger (1990), tenure has

“weathered the rise and fall of McCarthyism, the flow and ebb of student riotousness, and the feasts and anticipated famines of college student enrollments” (p. 3).

Tenure again became a focal point of controversy during the 1990s, and the subject of intense scrutiny and re-examination. The system has come under attack in the popular press in books such as *Profscam* and *Imposters in the Temple* that have characterized professors as incompetents who are beyond evaluation and privy to lifetime job security. Tenure’s weaknesses have become more prominent as institutions struggle to do more with fewer resources. In fact, the attacks on tenure have become so prevalent that a *New York Times* article noted that “Faculty bashing is on the rise... and these complaints against faculty are generating pressure to modify or eliminate tenure” (Honan, 1998, p. A33).

In light of these public pressures, some institutions are taking a direct and aggressive stance relative to policies affecting tenured faculty. In recent years some smaller colleges have actually moved to abolish tenure. In 1994, the president of Bennington College in Vermont, responding to a \$1 million deficit and plummeting enrollment, fired 26 professors (1/3 of the faculty) whose “teaching had grown stale” (Wilson, 1997, p. A10) and replaced the Bennington version of tenure with three-year renewable contracts.

In early 1996, all of higher education watched with profound interest the stand off over a several month period between the faculty and the trustees at the University of Minnesota. The Minnesota trustees unveiled a controversial set of proposals which, among other things, allowed trustees to cut the base salaries of faculty for reasons besides

financial exigency and to implement arbitrary, massive dismissals of faculty (Miller, 1999). Faculty viewed these proposals as a threat to the tenure system and academic freedom. After the faculty revolted and the state's Governor stepped in, the trustees eventually backed down. Still concerned about these issues in February 1997, the full-time faculty at Minnesota came within a few votes of unionizing (Holden, 1997; Magner, 1996).

Attempted changes at academic medical centers have also made the headlines. In June, 1995, administrators at the University of Southern California (USC) Medical School sent a letter to faculty within the basic science departments claiming the school faced a budgetary crisis and informing them their appointments would be changed from twelve months to nine months. The administration further indicated that as a result of this reduction in duties from a twelve-month schedule to a nine month schedule the current salary would be reduced accordingly by 25% (Kaslow, 1999). This letter coincided with a news release from the USC Chronicle indicating that for 1996 the "university's financial activities generated...an overall surplus of about \$171.6 million" (Kaslow, 1999, p. 51). Feeling that the faculty contract had been breached, on November 15, 1996, seventeen tenured faculty from these departments filed a lawsuit alleging this action as a violation of their employment contract rights and, further, constituted age discrimination (Bodner, 1997; Holden, 1997, Kaslow, 1999).

Sometime in 1997, the USC administration reversed its previous decision to place basic science faculty on the nine-month schedule and indicated they would return the basic science faculty salaries to a twelve-month basis. Despite this concession the faculty

proceeded with their lawsuit because the administration continued to insist it had the right to unilaterally change the terms of the faculty contract from year to year (Kaslow, 1999). In December 1998, the litigation was settled out of court.

Issues have also arisen at the Georgetown University Medical Center relative to changes in the salaries of tenured faculty. In September 1997, the administration announced a new policy relative to the salary guarantees for tenured faculty. The policy redefined tenure in economic terms by establishing “guaranteed” minimum salaries tied to the fiftieth percentile of the Association of American Medical Colleges Survey of Basic Scientists-Salaries in the Northeast Region of the United States, 1997 (Glazer, 1999). In December 1997, eighteen tenured faculty members filed a grievance against the university for breach of tenure. Before the grievance could be heard, the administration promulgated another policy regarding productivity requirements for faculty compensation.

In May 1998, the grievance panel ruled in favor of the faculty, the university appealed, and lost in the second grievance. In July 1998, the administration requested that the Board of Directors overrule the grievance findings. The Board complied by indicating they were not bound by the terms of the Faculty Handbook nor the grievance committee’s findings. In January 1999, the faculty filed a lawsuit against the Board of Directors citing “breach of fiduciary responsibility, interference with due process, and breach of contract” (Glazer, 1999, p. 46). Four months later the lawsuit was settled out of court with the Board agreeing to rescind the compensation documents, reimburse the

faculty for approximately \$60,000 in legal expenses and reimburse approximately \$50,000 in grant funds they had used to pay their salaries (Van Der Werf, 1999).

Beyond the examples noted above, by far, the most common reform to come to the public's attention relative to tenure is post-tenure review. The concept of post-tenure review evolved in the early 1980s, and continues to be a point of contention and debate. Post-tenure review is a systematic, comprehensive procedure of periodic review of tenured faculty by their peers aimed at assessing performance; requiring that improvement occur if deficiencies are noted; and providing provisions for salary reduction for diminished performance, and eventual termination of tenure appointments for non-performance, a heretofore unheard of concept in academia (Licata & Morreale, 1997; Licata, 1998). As noted by Licata (1998), at the last count, state universities in almost 32 states were either in the discussion or implementation stages of evaluating tenured faculty performance.

State legislatures in California, Florida, Hawaii, Georgia, Maryland, North Carolina and Texas now require a periodic review of all tenured faculty, usually at five to seven year intervals. Other state institutions in Arizona, Minnesota, Virginia and Colorado require a review of those faculty, triggered by some event, which is usually unsatisfactory annual review. Most policies require, if faculty performance is found lacking, that a faculty development plan must be developed, and if improvement is not forthcoming over several subsequent evaluations, that sanctions may be imposed including reducing salaries of the faculty member or termination. (Holden, 1997; Licata, 1998).

Academe, the journal of the American Association of University Professors, is replete with articles, editorials, and policy statements challenging such inquiries and initiatives. Leatherman (1998) notes that in 1983 the AAUP issued a policy on post-tenure review which dismissed the practice of review of tenured faculty as “providing scant benefit, would incur unacceptable costs...and would threaten academic freedom” (p.1). In 1995, the AAUP summarily censured Bennington College for its president’s actions. And, in response to the escalation of tenure attacks, in January 1996, the AAUP formed a Task Force on Tenure to “undertake an assessment on tenure in light of current attacks by critics of higher education” (1996, AAUP).

AAUP proponents, such as its General Secretary, Burgan (1996) contend that any deviation from the AAUP’s 1940 *Statement of Principles on Academic Freedom and Tenure* is a violation of academic freedom and assails actions by administrators “that assume a devolution of faculty prerogatives to a managerial elite in our colleges and universities” (1996, p. 2). So strong is this sentiment that tenure is the necessary undergirding of academic freedom, that a resolution adopted at the 1996 AAUP Annual Meeting calls upon “tenured faculty to resist encroachments on tenure so as to ensure its future well-being” (p. 4).

The AAUP approved a new 28 page policy on post-tenure review in June 1998, which according to AAUP Vice President Gorman, “acknowledges the current political realities: that post-tenure reviews are being adopted whether the AAUP likes it or not, and that the association needs to weigh in on the issue to give professors some guidance”

(p.1). While noting that post-tenure review is fast becoming a reality, the report took a strong stance in support of tenure and academic freedom, noting:

We reject any demand for ‘accountability’ that takes the form of a belief that faculty members are properly subject to administrative criticism, let alone discipline, for teaching or research that is regarded by some to be misguided, ill-informed or out-of-step with institutional trends or priorities. So understood, ‘accountability’ is inconsistent with the very core of academic freedom, which extols the worth to society of the faculty member’s autonomy and self-direction. (p. 3)

The policy also noted that “it chills academic freedom when faculty members are subjected to revolving contracts or recurrent challenge after they have demonstrated their professional competence” (p. 7).

While containing many variations, the crux of today’s tenure debate centers around proponent arguments that “tenure serves two important ends: the protection of academic freedom, and the assurance of economic security by bestowing on the recipient an appointment of indefinite duration that can be terminated only for specified reasons and in accordance with codified procedures” (White, 1997, p. 7). Proponents argue these two concepts are inextricably entwined and thus beyond reproach. Others support this concept by holding that tenure is necessary to attract and hold very capable persons to the low paying professoriate because of the benefits of lifetime job security (Cotter, 1996), and is necessary to establish the procedural safeguards of due process for faculty (Van Alstyn, 1994). Robert O’Neil (1996), chair of the AAUP panel on tenure, argues in

response to recent actions to reduce faculty members' salaries that "the primary mission of tenure is to protect academic freedom by protecting the status of faculty, and asks...can one protect that status without protecting its economic base" (p. 4).

In defending the concept that tenure is essential to protection of academic freedom, Perley (1997), president of the AAUP, contends that "tenure and collegial governance, linked firmly to academic freedom, have served us all...Abandoning those concepts threatens to bring down the structure" (p. A48). Perley (1995) also recites a list of threats to academic freedom today, from legislation in Ohio "under cover of secrecy to increase faculty workload by 10% (p. 43), to Arkansas' proposed elimination of one of its two law schools and summarily terminating tenured faculty members" (p. 44). Arden (1995) counters the argument that academic freedom is now so secure that tenure is no longer necessary by noting, "every year the AAUP must investigate numerous circumstances of suppression on campuses...some of the offenses are so egregious that they would be hard to believe if the facts were not so profoundly evident"(p. 39).

Opponents of these concepts, on the other hand, argue that tenure and academic freedom are not inextricably linked. These proponents of change contend that the professoriate does not need the protection of lifelong tenure to receive the protections of academic freedom - - - freedom of expression and inquiry- - - these should be rights of all faculty, including the escalating numbers of part-time, adjunct, and temporary faculty (Chait, 1997; Magrath, 1997). Noted higher education attorneys Oolong (1996) and White (1997) hold that tenure is a contractual concept and relates primarily to an employment contract between the faculty member and the institution relative only to the

duration of a faculty appointment. White (1997) cites Van Alstyne in defining tenure as “a contractually enforceable institutional promise that no person continually retained as a full-time faculty member beyond a specified lengthy period of probationary service may thereafter be dismissed without adequate cause, and that those contractual guarantees require that termination must be for reasons and only in accordance with procedures that are specified as part of the employment contract” (p. 8).

O'Toole (1994) contends that tenure “is inimical to academic freedom, discourages radical innovation and risk taking, and limits the mobility of professors” (p. 79). John Silber, President of Boston University, argued in 1974 that tenure actually allows and encourages an infringement on academic freedom by tenured professors keeping nontenured faculty from “developing independently by forcing them to follow a doctrinal orthodoxy defined by the seniors in their department...and thus represents by far the most serious and frequent violation of academic freedom in our colleges and universities” (in Van Alstyn, 1994, p. 89). Supporting this argument, Parini (1995) notes that:

the arguments against tenure are stronger by far than any in favor of it. For a start, the system does not do what it was supposed to do: protect free speech. On the contrary, my untenured colleagues, who must endure seven or eight years of uncertainty before the “big decision”, do not feel free to speak their minds with impunity during those years (p. A40).

Helfand (1995) agrees, noting that as a graduate student he observed that tenure track faculty “had to follow paths of inquiry and behavior carefully designed not to offend or irritate those with absolute power over their fate” (p. B1).

Many, both inside and outside the academy, argue that the institution of tenure has seen its golden age. Chait (1998) cites a 1995-96 survey of 34,000 full-time college and university faculty conducted by Sax, Astin, Arredondo, & Korn which indicated 35% of all respondents, 43% of respondents under age 45, and 46% of all women responding agreed that “tenure is an ‘outmoded concept’ that needs to be revamped or abandoned” (p. 2). Outside of the academy, in this decade’s mode of corporate downsizing and universal competition, job security, especially when it is conferred on a lifetime basis, is hard for many Americans who are faced with the insecurity of their employment situation, and who no longer live under the concept of a long-time covenant between employer and employee (Gappa, 1997; Trachtenberg, 1996) to accept. This position is supported by Daley (1996) who noted “defenders of tenure must realize that arguments about academic freedom ring hollow to the public whose growing instability of employment makes tenure appear a luxury” (p. B 3).

In an attempt to bring some order to this cacophony, since 1995 the American Association for Higher Education (AAHE) has chosen not to endlessly debate the pros and cons of tenure, but rather to reframe the issue by initiating a two-year, nationwide project to re-examine tenure and design more flexible career paths for professors. The project, entitled “New Pathways: Faculty Careers and Employment in the 21st Century” has been led by distinguished higher education scholars R. Eugene Rice, Richard Chait,

and Judith Gappa. Rice oversaw the series of reports on creating career options, while Chait and Gappa reviewed alternative employment arrangements.

The progress of this project has been disseminated through the AAHE journal, *Change*, through its annual national conference, and through a series of 14 working papers released from 1996 to 1998. In their working papers, both Chait and Gappa have reported that the past eight years have seen a change in attitude among many academic leaders. As noted by Chait (1998), academic leaders are sounding a common refrain “traditional, textbook tenure as codified by the AAUP, must change if tenure of any kind is to survive” (p. 1). Yarmolinsky (1997) agreed, citing that “the question is not whether to preserve...or abandon [tenure], but rather how we can adapt tenure to the changed and changing circumstances of the academic world...Tenure is not going to go away...But tenure is not going to stay the way it is either” (p 1). Kennedy (1997) predicted a more ominous outcome for tenure:

Finally, we must confront the question whether the institution of tenure as we come to know it is likely to survive its present trials: uncapped mandatory retirement, financial stringencies, and public disapproval. There is a powerful reluctance to abandon it...On the other hand, it exacts a price in productivity that many find unacceptable in hard financial times. In fact, that argument may be moot. In many places, especially the large research universities, tenure may be slowly dying of natural causes (p. 138).

The “natural cause” referred to by Kennedy relates to the increasing proportion of part-time and adjunct professors now being hired on campuses across the nation. As

reported by Wilson (1998), "Although university presidents on most campuses are not announcing an official end to tenure, many of them are signing up full-time professors who will work on contract instead of on the tenure track...as positions come open or new ones are created, administrators are quietly filling them with full-time lecturers and researchers instead of tenure-track professors" (p. A12). These changes are needed, some contend, because institutions are concerned about the long-term costs of tenured appointments and the need for an institution to have flexibility in order to respond quickly to the supply and demand changes in various academic programs. Chait, in Wilson (1998), calls "the current mixture of tenured and non-tenure-track appointments unprecedented...and notes this is happening without any repudiation of tenure in most places, so it's stayed below the radar line" (A12).

Data confirm these trends. The percentage of full-time professors who hold tenure in 1995 is the same as it was in 1975, while the proportion of full-time faculty working on contracts rose from 19% in 1975 to 28% in 1995. This represents a doubling of the number of non-tenure-track professors who work full time. Ernst Benjamin, director of research for the AAUP, predicts "within a few years this will show up as a dramatic erosion of tenure" (Wilson, 1998, A12). Wilson reports that "the nation's tenure gurus are paying close attention to this trend, and many of them are going so far as to label it a 'silent killer'" (A12). Schuster (1998) agrees, noting "over the past couple of years, the critics of tenure have begun to smell blood for the first time" (p. 3).

Critics are also taking note of changes outside academe which might provide some valuable insights into possible employment options for academic institutions and

faculties. As part of the AAHE working paper series, Trower (1998) conducted a lengthy analysis of creative employment practices in other professions and found that law firms and the major national accounting firms are faced with many of the same financial pressures confronting higher education. Law firms historically have adhered to an “up or out” approach similar to academic tenure for its young associates. New lawyers worked for six to ten years as associates, then at some point were either invited to become partners or leave the firm.

The same occurred in accounting firms. This practice seemed like a waste of talent in that “law firms fired many associates rather than retain them in the position in which they already have been shown to be competent and profitable...why give up the potential profits from continuing to employ the associate in a capacity other than partner” (Trower, 1998, p. 9). In parallel with the current trend in academe, both professions have sought alternatives to the “up or out” structure and have adopted different job categories and titles with designated performance criteria and compensation levels for each category. These alternatives are in lieu of the traditional firm partnership with its tenure-like appointment for life.

Similar employment alternatives have long been underway at the nation’s medical schools with development of alternative tracks for laboratory investigators who perform basic research, clinical investigators who conduct clinical research, clinician educators who teach and make scholarly contributions to the medical literature, and clinical scholars who make scholarly contributions in clinical care and clinical teaching. Medical

schools have also made alterations by extending the length of the probationary period (Gappa, 1996).

This trend is increasing across the nation. Chait (1998) notes that 39% of colleges and universities reported changes in tenure criteria; that some institutions have altered their criteria “for removal of tenured faculty on the basis of performance, including ‘ineffective teaching’ (Colby-Sawyer College), ‘serious instructional difficulties’ (Ithaca College), and ‘continued or repeated unsatisfactory performance evaluation’ (North Dakota)”(p. 3), and that the percentage of universities that have extended the probationary period beyond seven years increased from 2.2% in 1974 to 10% in 1992 at public universities and from 9% to 30% in private universities.

In light of these developments, Breneman (1997) noted that the current discussion of tenure has “an unreal flavor, because while spirited arguments fly back and forth at the level of high principle, the world to which these principles presumably apply is changing quietly and without fanfare toward a system marked by substantial diversity in employment arrangements” (p. 11).

It is within this contextual backdrop of national debate surrounding tenure and employment options that this study of changing compensation structures in colleges of medicine was conducted. That this study is timely was reinforced during conversations between the author and Judith Gappa and Richard Chait. Gappa noted in her paper on new employment alternatives, and in conversation with the author, that “medical schools are at the forefront of redefining the academic career and faculty status’ (p. 34). Chait, who supports universities offering a variety of employment options such as rolling year

contracts or allowing faculty to trade tenure for higher salaries or more frequent sabbaticals (1994), observed in personal communication "all of higher education is waiting to see what colleges of medicine do with uncoupling tenure from their compensation plans." This study was conducted to provide new insights which will add to the employment options that are being explored for the general university professorate.

Theoretical Context

There have been major changes in the organization, financing, and culture of medicine in the past quarter century. These developments have spawned theoretical interpretations and a body of literature by sociologists which focuses on the way occupational groups relate to each other, to clients, and to the surrounding society, i.e. the sociology of the professions (Hofoss, 1986; Mechanic, 1991). It is within the theoretical context of the sociology of the professions, and, more specifically, the sociology of medicine, that the impact of technological, cultural, political, and economic changes on the role and dominance of the American medical profession was examined. It is expected that such an examination will lead to a more complete understanding of the evolution of medicine in society and thus, the resultant economic and organizational impact upon today's academic medical centers. It is further anticipated that this examination will provide both a strategic view of what has been happening and insight into the strategic adaptations which must be undertaken by these academic organizations.

The evolution of medicine in America, and academic medical centers in turn, has been significantly affected by changing social values, changing economic conditions,

changing government intervention, and demographic shifts (Begun & Lippincott, 1993; Lewis & Sheps, 1983). For decades, the members of the medical profession enjoyed the advantages of formidable governmental, business, and public support. In referring to what he called "America's golden age", Burnham (1982) noted that "...up until the 1950s American physicians enjoyed social esteem and prestige along with an admiration for their work that was unprecedented in any age...and were relatively free from public censure or actual interference in clinical and professional activities" (p. 1474). Begun & Lippincott (1983) observed that "in no other sector of the economy were professionals so trusted to serve the public and so encouraged to incorporate the latest new knowledge and technology into their work" (p. 3).

With the explosion of the medical science knowledge base and the development of new technologies such as radioactive isotopes for radiation therapy, fiber optics for the various scopes used in surgeries, and "miracle drugs", public opinion toward the medical profession was extremely favorable. According to Burnham (1982), by the 1940s physicians had persuaded the public "to want and expect uniformly well-trained, well paid physicians who themselves set standards of practice...and, as a result, Americans began to view extensive medical care as a life necessity" (p. 1474).

By the 1940s and 1950s the profession of medicine had gained political control and authority over the nation's health policy. Describing this period, social scientist James Morone (1994) noted, "public authority over medicine was ceded to physicians...and physicians, drawing on their expertise, operated as health care trustees. Legislators were solicitous, government bureaucrats deferential, patients obedient, payers

passive. The profession defeated the legislation it opposed, won the policies it supported, and guided the administration of existing health programs" (p. 149). Medicine had gained a monopoly on the nation's health care through the activities of the American Medical Association (AMA), a well-organized, extensively financed, and extremely prestigious interest group. As indication of this position of control, Morone (1994) cited a 1954 quotation in the New York Times which hyperbolically stated that the AMA "is the only organization that could marshal 140 votes in Congress between sundown Friday night and noon on Monday" (p. 151).

Despite the glowing public image of scientific medicine, by the 1950s the public's confidence in the medical profession began to wane and the profession was criticized for failing to make physician services available to more people and for its organized opposition to national health insurance. Morone (1990) and Starr (1982) equated the medical profession's power during this period with an exaggerated case of interest group liberalism, government authority wielded by an industry, generally for the benefit of its members. As further evidence of the monopolistic behavior of medicine, in 1953 the U.S. Supreme Court found the physician groups, including the AMA, "guilty of restraint of trade" (Burnham, 1982, p. 1475).

Over the past twenty years several distinguished sociologists have formulated theories and conducted studies which focused primarily on the radical changes in the status of the medical profession within the health care system. In an attempt to examine and analyze the power and autonomy that had been attained by the medical profession, noted sociologist Eliot Freidson (1970a) applied the use of sociological concepts, such as

the sociology of knowledge, to study how the profession's self-direction or autonomy was developed, organized, and maintained.

Through his seminal works (1970a; 1970b) Freidson is credited with shaping the sociological context and analysis of the medical profession over the past twenty years with his concept of "professional dominance"---the relation of the medical profession to other health care occupations in the division of labor. As noted by Light (1991), Freidson's focus on dominance was an "idea that expressed the mixture of awe and anger felt in the late 1960s towards both the technical wizardry and the arrogant insensitivity of a seemingly impregnable profession" (p. 499).

Freidson (1970b) portrayed the medical profession as dominant in the division of labor in which other occupations (nurses, pharmacists, inhalation therapists) were obliged to work under the supervision of physicians and take orders from them. He noted "with its exclusive license to practice medicine, prescribe controlled drugs, admit patients to hospitals, and perform other critical gate-keeping functions, the medical profession has a monopoly over the provision of health services" (p. 15). He opines that professional dominance is the analytical key to the inadequacy of health services due to medicine's monopolizing the work domain, legally excluding others through control of licensure, and marginalizing the tasks performed by substitutes. Freidson's sociological studies of the organizational, political, and economic hegemony of the profession were the platform from which all others grew.

Applying the sociological theory of professions to the dominance of medicine, Torgersen (1972) argued that " the definition of profession implies a monopoly, a 'corner'

on jobs...the ultimate end of the process of professionalization is the dominant motive...and perseverance of professional self-interest" (p. 202). Hofoss (1986) counters this strictly sociological concept of profession-building by declaring that as medicine became more dependent upon science and technology, such as the discovery of anesthesia, the electron microscope, fiber optics, and radioactive isotopes, that such specialized technology required specialized knowledge, and thus the physicians gained a position of dominance...not through sociological preservation of self-interest, but as a "scientific and technological *raison d'etre*" (p. 204).

Other sociologists have gone beyond the economic and occupational aspects of the health care system in characterizing the position of the medical profession. Illich (1976) asserts that the medical profession creates the needs that lead people to seek their services, in effect influencing consciousness so that people think of their problems as medical in nature and as requiring aid of a physician. He defined this form of intellectual dominance that controls the way people think as ideological or cultural hegemony. Also at the cultural level, Zola (1983) contends that "American society has an almost insatiable interest in health and medical affairs ...with mass media tracking every potential biomedical advance" (p. 153). He credits this medicalization of personal and social problems with expanding the importance of medicine and the public's perceived dependence on it.

Other sociologists and political scientists write of ironic dynamics that occurred as a result of the medical professions' extensive lobbying to keep government intervention at bay and quash national health insurance. As noted by Morone (1994), "when the

medical profession and its allies defeated national health insurance, they set in motion an ironic dynamic. Widespread insurance coverage without controls produced inflation; health care costs grew, relative to the economy, in all but three of the last forty years" (p. 2). With the passage of Medicare in 1965, which provided government-supported health care for the elderly, and allowed physicians to set their own reasonable reimbursement levels for Medicare treatment, Morone (1994) contends that Medicare was "captured by the medical profession...and produced unforeseen consequences...impacting costs and the political economy of health care" (p. 153). Bullough, (1973) notes that this strong opposition forced many compromises in these two bills, and contends the compromise whereby "private insurance companies were established as fiscal intermediaries and the sections that allowed physicians and other health care providers to set their own fees, with only their consciences and their customary fees as guidelines" (p. 1926) led to quickly escalating fees, drove up the cost of health care for the nation, and "certainly fostered a cost-plus psychology in the health care industry" (p. 1926).

Begun & Lippincott (1983) note that " in recent years health professionals have discovered that the benevolence of their work world is eroding in the face of growing concern over their unresponsiveness to public needs...and in the identification of physicians as a major source of the problems of access to health care and exploding costs" (p. 3). Evans relates that "this period has seen a general loss of respect for the medical and scientific professions" (1995, p.16). He cites as evidence:

the dramatic increase in malpractice claims, changes in federal attitudes about indirect costs, greater federal scrutiny of possible financial mismanagement of

research funds, free floating anger over the rate of increase of health care costs, and mounting frustration at the persistent and possibly worsening maldistribution of physicians among specialists and geographic areas, especially in the face of unconscionably high numbers of people without health insurance. (1995, p. 16)

Enjoined with the medical profession as a source of these problems are the nation's academic medical centers, which are often viewed as perpetuators of specialty and sub-specialty training and expensive, high-tech treatment. As evidence of this sentiment, Butler (1992) notes that the medical profession, and the academic medical centers, is being asked by the public and public officials to accept responsibility for the failure of our nation's health care system. He notes, "As we have diligently advanced medical knowledge and patient care, we have paradoxically created political and economic problems of ominous proportions. These issues trouble the public and threaten the integrity of medicine as we know it" (p. 68). Foreman (1994) opines that despite the incomparable success of academic medicine, "a grateful nation seems not to lie at our feet. There is a sense that academic medicine may somehow have failed to deliver on important parts of our social contract, a contract we entered, at least implicitly, by accepting society's generous support" (p. 97).

Marketplace reactions to government becoming a major force influencing developments in the medical care sector, the "twenty-five year old cost crisis spawned by the implementation of Medicare and Medicaid", (Morone, 1994, p. 153), and academic medical centers' relative unresponsiveness to vexing health public health problems, a growing body of sociological literature has developed which alleges the fall of the

medical profession from dominance and its loss of autonomy. Reacting to these developments, social scientists have applied the concepts of "deprofessionalization" (Haug, 1973, 1975, 1977), "proletarianization" (McKinlay & Arches, 1985), and "bureaucratization" (Morone, 1994) to describe the radical decline of the power of the medical profession.

These scholars allege that the profession of medicine is no longer insulated from external economic and political scrutiny. As large health care corporations buy physician practices and hospitals across the nation, Begun & Lippincott (1993) contend that medical professionals "are more and more being treated like business inputs into the 'product' called health care...and that large health care delivery organizations, potential substitute professions, and insurers have begun to challenge the status quo in the division of health care labor" (p. 4). As changes pummel the profession of medicine, so do they pummel the nation's colleges of medicine. These changes impact medical school finances, personnel policies, and compensation structures. This study was designed to investigate and examine how these changes have impacted the faculty compensation structure at six Midwestern medical schools.

Chapter III

METHODS

Introduction

Research Design

A non-experimental quantitative design was selected for this study. According to Yin (1994), the selection of a particular research design depends on consideration of "(a) type of research question posed, (b) the extent of control the investigator has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to historical events" (p. 4). The selection of a research design also depends upon other factors, such as whether the method will produce the kinds of data needed to answer the questions posed in the study, whether the data is quantifiable and will allow for the objective comparison of individuals, and if the data can be replicated by other researchers (Warwick & Lininger, 1975).

The descriptive research method, described by Gall, Borg, and Gall (1996) as "the most basic of quantitative research methods" (p. 373) was selected because the purpose of the study was to make careful descriptions of observed phenomena, to make descriptive assertions about some populations and/or to explore the possible relationships between different phenomena (Babbie, 1973; Leedy, 1997). Given the various criteria described above, the specific type of descriptive research design used for this study was a descriptive survey.

The descriptive survey was appropriate for this study because it met the three conditions noted by Warwick and Lininger (1975), "...when the goals of the research call

for quantitative data, when the information sought is reasonably specific and familiar to the respondents, and when the researcher himself has considerable prior knowledge of particular problems and the range of responses likely to emerge” (p. 9). The descriptive survey allows “the study of a specific situation or phenomenon as it is and does not attempt to manipulate variables in the situation” (Leedy, 1997, p. 189). Using the descriptive survey method, this study measured the characteristics of a sample at one point in time and employed a self-administered questionnaire in combination with semi-structured interviews.

Objectives of the Study

The objectives of this descriptive inquiry were to estimate as precisely and comprehensively as possible: 1) what changes had occurred in medical school faculty compensation plans at six medical schools in the Midwestern United States since 1997; and 2) what impact, if any, these changes had on the guaranteed salary of tenured faculty and 3) what impact, if any, these changes had on the faculty members’ time commitment to, and quality of engagement in, such academic activities as teaching, research, patient care, service on committees, willingness to mentor junior faculty, and willingness to assume administrative duties.

Through analysis of the compensation structures at a sample of Midwest medical schools, data collected from questionnaires administered to medical school faculty and medical school administrators at those institutions, and from semi-structured interviews, this study provided heretofore unavailable baseline information. Interpretation of the research data from this study will provide meaningful insights to academic medical center

leaders about the scope and direction of adaptations to faculty compensation plans underway at other medical schools. This information will assist these leaders with developing and implementing policy changes relative to faculty compensation structures and to that portion of faculty salary guaranteed by tenure. Robert Jones, Executive Vice President at the Association of American Medical Colleges, concurred with these expectations in his statement:

I envision your project as providing valuable perspective to deans of medical schools, many of whom are still struggling with their faculties to design compensation arrangements that honor tenure and institutional commitments yet reflect the financial uncertainty that accompanies the academic medical enterprise. I believe that it will be of value to the rest of higher education, which is itself debating the need for a more corporate approach to the management of colleges and universities.
(personal communication, July 27, 1998)

Selection and Description of the Sample

Target Population and Sample

As noted by Leedy (1997), “the descriptive survey method demands that the researcher select from the general population a sample population that will be both logically and statistically defensible” (p. 211). Survey samples must represent the populations from which they are drawn if they are to provide useful estimates or

inferences about the characteristics of that population based on information contained in the sample ((Babbie, 1973; Scheaffer, Mendenhall, & Ott, 1979).

The initial target population for this study was medical school faculty and medical school administrators (deans, associate and assistant deans, department chairs, or section chiefs) at 13 Midwest medical schools—The University of Arkansas, Baylor University, the University of Colorado, the University of Kansas, the University of Missouri, the University of Nebraska, the University of New Mexico, the University of Oklahoma, the University of Texas Medical Branch – Galveston, the University of Texas-Houston, the University of Texas – San Antonio, Texas A&M University and Texas Tech University. These medical schools were selected because of their designation as “peer institutions” of the University of Oklahoma Health Sciences Center (the researcher’s home institution) by the Oklahoma State Regents for Higher Education . These represent medical schools comparable among such variables as size of faculty, budget, and array of academic programs.

Preliminary telephone inquiries to Deans of each of the 13 medical schools revealed that while all 13 medical schools had compensation (payroll) structures in place, only six operated under structured faculty compensation plans which more formally linked a faculty member’s compensation with attainment of productivity measures. The medical schools at Baylor University, the University of Nebraska, the University of Texas-San Antonio, and Texas Tech University had no central compensation plan and salaries were determined at the discretion of the department chairman. Two medical schools—the University of Kansas and the University of Missouri-Columbia—had

developed a compensation plan but that plan had not been ratified by the faculty. The medical school at Texas A&M University did not directly employ the clinical faculty of the school but contracted with the Scott and White Memorial Hospital and Clinic to provide physicians for clinical teaching. Thus, of the 13 medical schools only six medical schools operated under a formal compensation structure—The University of Arkansas, the University of Colorado, the University of New Mexico, the University of Oklahoma, the University of Texas Medical Branch-Galveston, and the University of Texas-Houston. These six institutions became the survey population for this study.

The target size of this sample of medical school faculty and administrators was 300 or more respondents, with a desired minimum of 50 respondents from each of the six medical schools. Because this research problem was relevant to more than one group within the survey, population parallel sampling was used. The parallel samples consisted of a population of medical school faculty and a population of medical school administrators. The researcher wished to sample medical school faculty attitudes about changes in faculty compensation plans and to discern the potential impact of those changes on faculty salaries and the faculty members' willingness to commit time to traditional academic duties, and at the same time learn how medical school administrators felt about those same issues. For a study such as this, parallel sampling allowed the separate sampling of each population and administration of a slightly modified questionnaire to each sample, thus allowing for comparison of results (Babbie, 1973; Hyman, 1963; Levy, 1999).

Stratified Sampling

Most U.S. medical schools are structured into basic sciences and clinical sciences departments. The basic science departments generally consist of Ph.D. faculty teaching anatomy, biochemistry, cell biology, microbiology and immunology, pharmacology, and physiology. The clinical departments or sections generally consist of M.D.s conducting hospital and clinical teaching in such specialty areas as cardiology, family medicine, geriatrics, neurology, obstetrics and gynecology, ophthalmology, pediatrics, surgery, and other clinical disciplines. Because of this delineation, the parallel samples of medical school faculty and department chairs required additional stratification of the sample population into subsets of basic sciences faculty and clinical sciences faculty.

The ultimate purpose of stratification was to organize the population into homogeneous subsets (with heterogeneity between subsets) and to select the appropriate number of elements from each. The most common type of stratification is simple stratification, where the total sample is allocated to the various subsets or strata on a proportional basis, thus insuring that appropriate numbers of elements are drawn from each homogeneous subset (Babbie, 1973; Jessen, 1978; Leedy, 1997). The method of stratification used for this study was to group the survey population elements into discrete groups based on the stratification variables of basic sciences faculty and clinical sciences faculty. The number of faculty from each group was selected based on the relative proportion of the population sample represented by each faculty group at the respective medical school.

The sampling frame, “the actual list of sampling units from which the sample, or some stage of the sample is selected” (Babbie, 1973, p. 81), used for this study was the faculty roster of all medical school faculty at each institution. While this varied slightly by institution, the sample population generally consisted of 70% clinical faculty and 30% basic science faculty. Thus, the questionnaires were randomly distributed at each medical school to faculty within the two subgroups in the same relative proportion as the number of faculty within each subgroup.

Methods of Data Collection

This study employed document collection and analysis, self-administered questionnaires, interviews, and site visits to several of the institutions as the methods of data collection.

Document Collection and Analysis

The initial phase of this study involved the review and analysis of faculty compensation plan documents from the six medical schools in the sample. As noted by Merriam (1988), document analysis or review is an effective source of information that exists independently of the researcher's influence. The compensation plan documents were obtained during an earlier project in which the researcher gathered examples of faculty compensation plans from medical schools across the United States as part of a collaborative project with the Section for Institutional and Faculty Studies at the Association of American Medical Colleges. The benchmark characteristics of faculty compensation plans identified in that project are noted in Appendix A.

Self-Administered Questionnaires

Drawing upon the benchmark characteristics contained in an array of medical school faculty compensation plans (Appendix A), an initial questionnaire was developed. The seven page questionnaire consisted of 35 elements requesting information about: 1) reasons for modifying the compensation plan; 2) processes used to develop and implement the plan; 3) strategies that worked and/or the stumbling blocks; 4) impacts of the revised plan on tenure and its related salary guarantee, on individual faculty salaries, productivity and compensation, department chair roles, and faculty commitment to, and quality of engagement in, the academic activities of teaching, research, patient care, service on committees, willingness to mentor junior faculty, and willingness to assume administrative duties.

Pre-Testing of Questionnaire

Following best practices, the researcher conducted a pilot test of the questionnaire to ensure the questions were clear, easily interpreted, directions were followed correctly, and to determine if any part of the questionnaire suggested bias on the part of the researcher (Babbie, 1973; Salant & Pulman, 1998). As noted by Salant and Pulman (1998), the pilot test should be conducted with people who are typical of likely respondents. To ensure the diversity of the population of basic sciences and clinical faculty was represented, medical school faculty members at the researcher's institution (The University of Oklahoma Health Sciences Center) from basic science and clinical departments were asked to pre-test the questionnaire.

Input from these individuals indicated that while the questionnaire instructions were clear, the questions well formatted and organized, and no researcher bias was evident, there were some concerns. They noted concerns that the questionnaire contained a large number of questions pertaining to why the plan was modified, what processes and strategies were used, what changes occurred to the roles and responsibilities of department chairs, and to faculty salaries in general. It was their feeling that this information would not be readily known by most faculty. In addition, they noted the questionnaire was too long to hold a busy faculty member's attention and thus might negatively impact the response rate. They suggested that a shorter, one-page version be developed to administer to faculty members and that the seven-page, more detailed version be administered to medical school administrators (deans, associate or assistant deans, department chairs or section chiefs).

The questionnaire administered to medical school administrators is noted in Appendix B. A shorter questionnaire containing elements from the administrator questionnaire was administered to medical school faculty members (Appendix C). The questionnaires were accompanied by a cover note explaining the study and requesting respondent participation (Appendix D1), an informed consent form (Appendix D2), and a return, pre-stamped envelope. Given the constraints of logistics, printing and postage expenses, approximately 200 questionnaires were distributed at each of the six medical schools.

Questionnaires were personally delivered by the researcher to the dean's office and department chair offices of the basic science and clinical departments at the

University of New Mexico School of Medicine, the University of Oklahoma College of Medicine, the University of Texas Medical Branch-Galveston, and the University of Texas-Houston School of Medicine. An administrator's questionnaire was left for the department chair or section chief, and faculty questionnaires were distributed to the basic science and clinical departments in proportion to the number of faculty in those departments. Either a department staff member or the researcher placed the faculty questionnaires in faculty mailboxes at random.

Questionnaires were mailed to the respective dean's offices at the University of Arkansas School of Medicine and the University of Colorado School of Medicine to individuals who had agreed to assist the researcher with distribution. Again, the administrator questionnaires were distributed to the Dean, the department chairs, or section chiefs, and the faculty questionnaires were distributed to faculty in the basic science and clinical departments on a proportionate basis and placed in faculty members' mailboxes in no particular pattern.

Interviews and Site Visits

Interviews conducted by telephone or in person during site visits augmented the data collected from the survey questionnaires. A semi-structured interview format (Appendix E) was used in which the interviewer was guided by a list of questions or issues to be explored, with probes designed to obtain additional, clarifying information (Leedy, 1997). The semi-structured interview format also allowed the researcher the freedom to determine the order of the questions as the interview progressed.

Telephone interviews were conducted with medical school administrators at the University of Arkansas School of Medicine and the University of Colorado School of Medicine. Site visits and face-to-face interviews were conducted with medical school administrators at the University of New Mexico, the University of Oklahoma, the University of Texas Medical Branch-Galveston, and the University of Texas-Houston using the same format as that employed during the telephone interviews.

As with any research study, this study was concerned with producing valid information about the phenomenon under review. The use of multiple sources of data collection, or triangulation, is one strategy used to enhance internal validity—the extent to which the researcher’s findings match the reality of the situation, and accurately reflect how the study participants view themselves and their experiences (Merriam, 1988). As part of triangulation questionnaires, interviews and document review were used to enhance the study’s validity.

Rights of Human Subjects

The Institutional Review Board of the University of Oklahoma-Norman Campus reviewed the study and found it to be exempt from the requirements of full Board review and approval prior to data collection (Appendix F). The informed consent form (Appendix D2) informed the users of the study and guidelines for participation. Completion and submission of the questionnaire represented an acknowledgement of the respondent’s voluntary consent to participate in the study.

All participant information was treated as confidential by the researcher. Data collected were stored in a password-protected database, accessible only to the researcher

and a biostatistician. All information entered via text fields was stored in raw form. All other data was stored using abbreviations or numeric values which were meaningful only when linked to the corresponding field name and instrument question. All printed copies of data were stored in secured files in a restricted area. Publications which arise from this study will only report group and summary data, and no data will be distributed which could lead to identification of individual respondents.

Data Analysis

Multiple measures of attitudes toward changes in faculty compensation structures at the respective medical schools were made by means of self-administered questionnaire and semi-structured interviews. Review of the various faculty compensation plan documents required some system for coding and cataloging contents; thus a form of content analysis was used to analyze documents. Content analysis is a research technique used to measure the frequency and variety of messages and to categorize these variables in some systematic and analytical way so as to "capture relevant characteristics of the document's content" (Merriam, 1988, p. 117). The content analysis method was also used to analyze the responses to the open-ended questions contained in the questionnaires. The open-ended responses were codified into groups or patterns of answers.

The data from the questionnaires was entered into a computer database via an onscreen database management program, Microsoft Access 2000. SAS software, version 6.12 (SAS Institute, Inc., Cary, North Carolina), was used to perform all analyses. Questionnaires for deans/chairs and for the faculty were analyzed separately. The

dean/chair questionnaires were analyzed together and also stratified by university. The faculty questionnaires were analyzed together, stratified by university, and stratified by primary assignment (basic science/clinical) within each university. Frequencies and relative frequencies were calculated for each group.

Limitations of the Study

As noted by Babbie (1973), “properly drawn samples will provide information appropriate for describing the population of elements comprising the sampling frame, nothing more” (p. 89). Because the researcher surveyed a sample rather than the entire faculty at each medical school, the findings will be estimates of actual population characteristics. Although the generalizability of this study was limited by the sample population, the researcher contends that the basic science faculty and clinical science faculty respondents were representative of the target population of all medical school faculty, thus enhancing the generalizability of the data. The distribution of faculty respondents in this study, 27% basic science and 73% clinical science, was representative of the total medical school faculty population which is divided as approximately 30% basic science and 70% clinical science faculty.

The results of this study were also limited due to:

- (a) The size of the sample population,
- (b) Survey questions that perhaps did not capture all the variables affected by changes in faculty compensation plans,

- (c) Survey questions that were developed based on the assumption that faculty members had sufficient knowledge and information about the faculty compensation plan to respond accurately,**
- (d) The scope of questions that was limited to specific elements of academic medicine, or specific elements of faculty responsibilities. The researcher recognizes there may have been other areas affected by the change in faculty compensation plans other than those queried,**
- (e) The possibility of bias due to researcher-determined sample proportions of basic science and clinical faculty at each institution,**
- (f) The possibility of bias in questionnaire distribution by medical school staff at two institutions,**
- (g) Susceptability of data in descriptive survey research to distortion through the introduction of bias by the researcher into the research design.**

Chapter IV

RESULTS

Introduction

Participants in this study included medical school faculty and administrators (associate or assistant deans, department chairs or section chiefs) at the University of Arkansas, the University of Colorado, the University of New Mexico, The University of Oklahoma, the University of Texas Medical Branch-Galveston, and the University of Texas-Houston. Participants responded to a self-administered questionnaire that requested information about: 1) reasons for modifying the faculty compensation plan; 2) processes used to develop and implement the plan; 3) strategies that worked and/or the stumbling blocks affecting the plan's implementation; 4) impacts of the revised plan on tenure and its related salary guarantee and on individual faculty salaries; 5) impacts of linking productivity with compensation, on faculty commitment to, and quality of engagement in, the academic activities of teaching, research, patient care, service on committees, willingness to mentor junior faculty and willingness to assume administrative duties; and 6) outcomes and achievement of the plan's goals.

Approximately 1,320 questionnaires were distributed—1,200 to faculty and 120 to administrators—at the six medical schools between December 2000, and March 2001. A total of 422 individuals responded to the questionnaires, representing an overall response rate of 32%, which the researcher considered to be an acceptable response rate. The 382 faculty respondents included 103 (27%) from the basic science departments and 279 (73%) from the clinical departments. These percentages were almost identical to the

percentage of basic science faculty (30%) and clinical science faculty (70%) at the nation's medical schools as a whole. Thus it can be inferred that the non-respondents did not unduly influence the findings of the study.

An additional 40 medical school administrators (associate or assistant deans, department chairs, or section chiefs) responded to the administrator's questionnaire. The response rate from both faculty and administrators was similar, at 31.8% and 32%, respectively. Semi-structured interviews, either by telephone, electronic mail, or in person during on-campus visits, were held with three administrators at each medical school to augment data collected from the survey questionnaires.

Results of the Data Analysis

Medical School Compensation

As is common with most medical schools in the United States, the compensation for faculty at the six medical schools in this study is derived from a common set of sources—tuition and state appropriations, external research grants and contracts, clinical revenue generated by the medical school faculty, clinical services provided by the medical school faculty via contract with the teaching hospitals, Veterans Administration hospitals and clinics, and endowments. As is common at most medical schools the compensation of individual medical school faculty varied considerably by profession (i.e., clinical versus basic science), and discipline (e.g., neurosurgery versus general family medicine).

In addition, like their colleagues in medical schools across the country, medical school faculty at these six institutions were required to be members of the school or college faculty practice plan or professional practice plan. As a result, all sources of collected revenue generated within a faculty member's scope of employment with the school or college were required to be deposited with the institution. This included revenue generated from patient care fees and all other professional practice revenue wherever earned by the faculty member, professional consultation, medical/legal consultation, honoraria, and supervision of residents or other contracted professional services. Generally excluded from required deposit within the compensation plan are funds generated from prizes and awards, faculty member's interest in royalties, copyrights, patent rights, non-professional income, or compensation as a result of military duty.

At each institution, state-appropriated funds were generally allocated to support the core academic mission of teaching and research and for ancillary activities essential for the support of the academic mission. As a general rule, basic science faculty received a larger percentage of their salary from institutional funds than did clinical faculty. Basic science faculty received departmental support for teaching and mentoring students, and could further augment their salaries if they had obtained grants and contracts from external agencies.

On average, the clinical faculty were required to generate approximately 50% of their annual salary. The institution provided the remaining 50% in support of their teaching medical students and residents and for other ancillary duties. Each medical

school also had a taxation scheme that was applied “off the top” to the revenue generated by the clinical faculty. On average, after the Dean’s tax, the department chair’s tax, and the group practice pooled tax, plus deductions for their prorated portion of the group practice expenses (i.e. billing, collections, administrative expenses and personnel costs), the clinical faculty netted between 45% and 50% of all the clinical revenue they generated.

Compensation Plan Characteristics

In keeping with trends in medical schools across the country, the six medical schools in this study had each taken steps to redefine the terms under which they compensated their faculty and to formalize those terms in a college-wide faculty compensation plan and/or in department-specific plans. Review of the faculty compensation plan at each medical school revealed a core of common characteristics: 1) the division of compensation into three basic components, 2) designation of varying levels of institutional financial guarantees to each component, 3) introduction of compensation structures that were more performance-based and required the faculty to share part of the risk for generating salary revenue, and 4) more specific alignment of faculty compensation to individual or departmental success in all areas of the medical school’s mission—teaching, research, patient care, and service.

At each of the six medical schools the plans were applicable to both basic science and clinical faculty. Another common characteristic was the indication that, for the first time, the compensation plans provided a formal mechanism by which a faculty member’s

compensation could be reduced either due to diminished individual productivity or to section or department financial circumstance.

The compensation plans followed what is commonly known among medical schools as the XYZ or BSI model. This compensation model contained three basic components: 1) a fixed “base” (X or B) considered the fixed portion of total compensation for some period of time and usually guaranteed by and attendant upon the award of tenure; 2) a supplement component (Y or S) which is flexible, based on merit, and may be adjusted from year to year; and 3) a bonus or incentive component (Z or I) whose award is dependent upon the availability of funds.

The fixed base (X or B) component was developed in several different ways among the medical schools in this study. The base was found to be linked to some internal benchmark, such as the average salary by rank of faculty at the institution, or to an external benchmark, such as the AAMC Report on Medical School Salaries, or set at a fixed percentage of total salary.

The University of Colorado School of Medicine tied its base salary to an internal benchmark of 70% of the average salary of the prior year of all basic science faculty by rank. Administrators indicated the 2001-02 levels will be \$87,866 for Professors, \$64,591 for Associate Professors, and \$52,740 for Assistant Professors. The medical schools at the University of Arkansas, the University of Oklahoma, the University of Texas Medical Branch-Galveston and the University of Texas-Houston all tied their base salaries to an external benchmark—the most current AAMC national faculty salary data, designated by specific medical discipline (i.e., different salaries for cardiology,

psychiatry, surgery, etc.). The University of New Mexico School of Medicine adopted a slightly different method and combined the base salary component and the supplemental component into a category termed "contract salary." The plan designated that the base salary shall not exceed 85% of the contract salary for each faculty member. The contract salary was determined annually and guaranteed by the institution for the contract year.

The base salary was generally viewed as compensation for conducting the core academic missions of teaching, research, and college or departmental service or ancillary activities. The medical schools at the Universities of Arkansas, New Mexico, Oklahoma, and Texas Medical Branch-Galveston guarantee that the base salary for faculty at the rank of assistant professor and above will not be reduced during a faculty member's appointment at that institution except for cases of institutional financial exigency.

The base salary for faculty at the University of Texas-Houston School of Medicine was variable, established annually based upon that individual's past performance and qualifications for assigned duties and responsibilities, and was guaranteed by contract for that fiscal year only. At the University of Colorado School of Medicine all faculty at the rank of assistant professor or above are guaranteed a base salary for the term of their contracts. For tenured faculty, the contract period was unlimited, thus the base was guaranteed indefinitely. For non-tenured faculty, including specialty track faculty, the base was guaranteed only for the duration of the time-limited contract.

At each institution, if increases are awarded to the base salary those increases are generally tied to the regential/university policies pertaining to annual salary adjustments

made during the budget process for the upcoming fiscal year. For instance, if an institution has a general salary program averaging 4%, the base salary of the faculty members receiving raises would generally be increased by that percentage. As noted above, all of the plans guarantee, either by contract or by policy, the amount of the base salary for at least one year.

At each of the six medical schools, the supplemental component of faculty compensation was a variable and was related to performance. As a result the supplement may be increased or decreased for the upcoming fiscal year based on a faculty member's productivity during the previous year. The supplement was generally determined based upon the faculty member's contributions to the clinical, educational and scholarly missions, and to the success of the faculty member in meeting the previous year's goals and objectives. The supplemental component was primarily tied to the clinical earnings or research grants and contracts generated by the individual faculty member.

The supplement for clinical faculty was found to involve a complex set of calculations based on individual and departmental productivity measures or other variables. A majority of the plans stated that department chairs were required to establish productivity measures/criteria in conjunction with the department faculty, and to obtain majority ratification by the faculty before proceeding with implementation.

An example of productivity measures from one departmental plan included a statement that the supplemental component equaled "unit" income and was earned through faculty supervision of resident clinical activities. Under this plan one "unit" was equal to one half-day of resident clinic, labor and delivery, or operating room supervision.

A weekday night on call was worth two “units” and a 24-hour weekend day/night is equal to three “units”.

Another plan allocated supplemental income based on a weight of 20% to each of five areas—resident teaching, academic productivity, clinical productivity, departmental participation, and chairman discretion. Resident teaching was evaluated 1/3 clinical teaching, 1/3 didactic teaching, and 1/3 based on a critique by the residents. The plan noted the academic productivity component seeks to reward those who publish, provide invited lectureships and generally bring distinction to the department and the university. The 20% of salary linked to academic productivity was further allocated by a formula of 40% for publication of research papers, 25% for publication of case reports/short articles, 25% for abstracts/posters, and 10% discretionary for the chair’s allocation.

Salary derived from this department’s productivity component was determined by the individual faculty member’s gross charges for clinical procedures (80%) and overall departmental clinical billings (20%). In an effort to improve faculty participation in departmental meetings and activities, the 20% of faculty salary attributed to this participation variable was further apportioned 20% for attending weekly departmental meetings, 20% for attending faculty meetings, 20% for participating in the journal club, 20% related to monthly evaluations by the residents, and 20% for general participation efforts.

In contrast, the supplemental component of salary for research faculty in the basic science departments was determined through a more simplified process than that employed for clinical faculty supplements. For example, in addition to their base salary,

research faculty at the University of New Mexico, the University of Oklahoma and the University of Texas-Houston medical schools received the supplemental or variable component of their compensation based upon their receipt of external grants and contracts each year.

The amount of supplement paid to a faculty member was determined by the subsequent offloading of all or a portion of the faculty member's department-supported salary onto a salary line in the grant or contract. The departmental funds released from the appointment to a grant or contract were then allocated to the faculty member either in a direct supplemental payment or were provided to cover a faculty member's operating expenses (travel, journal subscriptions, etc.). The percentage of offloaded or released funds allowed for the research supplement ranged from 30% to 80%, with the department and/or dean dividing the remainder according to some approved percentage.

The compensation plans of the three institutions noted above more clearly aligned the relationship between the supplemental component and a faculty member's direct research activities. For instance, the compensation plan for the University of Texas-Houston School of Medicine stated that it was the policy of that institution for each component of effort to be paid from funds derived from the source of that effort. The plan further stated that "it is a desired objective to have 100% of an investigator's research effort funded by contract and grant research awards, with an overall objective of 20% of aggregate faculty salaries paid from grants." The compensation plan at the University of New Mexico School of Medicine moved beyond the concept of a desired objective and clearly stated that "research faculty will not have a base component of their

salary.” The effect of this policy was that research faculty at that medical school will have zero base and a 100% supplement designated as the components of their annual contract salary, which is determined annually and only guaranteed for the contract year.

The bonus or incentive component of medical school faculty pay has been a part of medical school compensation structures, particularly in the clinical departments, for many years. Department chairs and section chiefs have long had the discretion to allocate excess clinical revenues to reward their top clinicians. With the advent of the revised compensation plans to more closely tie the award of bonuses or incentives to productivity measures along several variables, departments have an opportunity to reward excellence in all areas of faculty responsibility. Each of the institutions surveyed had quantifiable productivity or performance measures for clinical activity, such as clinical billings or relative-value unit measures of clinical activity, and several had measures for teaching and participation in medical student or resident activities.

As part of the incentive component of its compensation plan, the University of Texas-Houston allowed the clinical faculty to receive 40% of the amount of clinical revenue collected on behalf of the individual (after all taxes and expenses have been deducted) in excess of a target amount established by the department, up to the limits set for the academic rank by the University of Texas System. The plan also allows individual departments the discretion of providing additional incentive payments from the department’s 60% share. The limits set by the University of Texas System are \$303,850 for department chairs, \$293,550 for professors, \$272,950 for associate professors, \$247,200 for assistant professors and \$206,000 for instructors. The plan clearly noted

that the departmental expenses must first be paid before allocations to clinical faculty are made, and that payment of individual incentives by a department was contingent upon a positive financial balance for the entire department.

In addition to the identification of the base, supplement and incentive components of faculty salary, the study also revealed that the amount of change to the supplemental component was often capped both upward and downward. For instance, the University of Texas-Houston School of Medicine capped their salary increases at or below the AAMC 80th percentile for each discipline, the University of Texas Medical Branch-Galveston School of Medicine attempted to sustain their salary levels at 80% of the AAMC 50th percentile for each discipline, while the University of New Mexico School of Medicine limited both upward and downward changes to 15% of contract salary.

The University of Colorado School of Medicine had no upper cap on increases and limited decreases to 15% of current salary, but the plan stated that decreases were not allowed to push a faculty member's salary below the guaranteed base. The University of Arkansas School of Medicine had no upper cap on annual salary increases nor lower cap on salary decreases. The University of Oklahoma College of Medicine recently adjusted its plan to require justification by the department chair when faculty salaries (base plus supplement) exceeded the 90th percentile of the most current AAMC Survey on Faculty Compensation. The University of Oklahoma College of Medicine had no limit on decreases to the supplement, but would not allow decreases to the base.

Thus, the faculty salary increases or reductions from year to year were derived through manipulation of the two variable components—supplement or incentive. These two components may be reduced even while the base pay remained the same or increased. Each of the medical school plans referenced the value of the new salary structure as providing some element of financial stability for the faculty (the base salary) while allowing the medical schools and their departments more flexibility to make adjustments (to the supplement or incentive component) based on the uncertainties in funding.

Reasons for Modifying the Plans

Administrators at the six medical schools were asked to identify the most compelling reasons that led to the modification of the compensation plan and to rate the impact of those reasons (Table 1). The variables were grouped into categories related to faculty recruitment and retention, institutional financial stability, and institutional mission (teaching, research, service). The vast majority of the administrators (76%) reported the most compelling reason for modifying the plan was linked to institutional financial stability—to provide fair compensation to faculty while assuring that the school/college retains earnings sufficient to secure its financial viability.

The second most noted factor (indicated by 68% of administrators) related to faculty recruitment and retention was “to encourage and reward high quality work.” More than half of the administrators cited various other elements centering around institutional financial stability as having major impacts on the initiation of a new plan: protecting the financial interests of all parties (59%); aligning faculty compensation with departmental

financial resources (58%); linking each component of professional activity to a component of salary (56%); and providing the school/institution with fiscal flexibility in a volatile environment (54%).

Variables related to the institutional mission of teaching, research, or service were cited most often as having no or moderate impact on the development of the revised compensation plan (Table 2). A total of 85% of the administrators noted that recognition of teaching responsibilities had no or moderate impact on the plan's development, while 81% cited encouraging faculty to work in collaborative partnership toward common goals of the school/institution had no or moderate impact. Of the administrators, 73% reported that explicitly defining the relationship between tenure and compensation also had no or moderate impact.

Table 1 – Most Compelling Reasons for Modification of Compensation Plans

Most Compelling Reasons for Modification of Compensation Plans		
	Number of Responses	%
Provide fair compensation to faculty while assuring the school/college retains earnings sufficient to secure its financial viability.	31	76
Encourage and reward high quality work.	28	68
Protect the financial interests of all parties.	24	59
Align faculty compensation with departmental financial resources.	23	58
Link each component of professional activity to a component of salary.	23	58
Provide the school/institution with fiscal flexibility in a volatile environment.	22	54

Table 2 Variables with No/Moderate Impact on Plan Modification

Variables with No/Moderate Impact On Plan Modification	Number of Responses	No/ Moderate Impact
		%
Recognition of teaching responsibilities.	33	85
Encourage faculty to work in collaborative partnership toward common goals of the school/institution.	33	81
Explicitly define the relationship between tenure and compensation.	29	73
Increased competition for research funding.	30	73

Process Used to Modify the Plans

Of interest to this study was the process used by the medical schools to modify the compensation plans, the degree of involvement of faculty in that process, the efforts to communicate with the faculty during the process, and the length of time to complete the revisions. Overall, 71% of administrators reported the organizational structure developed to manage the process and make recommendations for revision of the compensation plan was a faculty committee. Among the medical schools using the faculty committee structure, 39% conducted their work without assistance from external consultants, while 32% had assistance from external consultants.

In response to whether the process was “open,” in that meetings held to discuss the revised plan were public and open to all faculty and staff, 49% of the administrators responded “yes”, with an additional 31% responding “somewhat.” Relative to the extent

to which faculty were involved in certain activities during the process, 84% of administrators noted faculty had moderate to extensive involvement by providing input when asked, 79% indicated moderate to extensive input from faculty in proposing solutions, and 72% noted moderate to extensive faculty involvement in presenting the proposal to colleagues.

Overall, 60% of the administrators reported that the process involved a clear communication plan to keep the faculty informed as work progressed on the revised plan. Administrators reported using e-mail/campus mail, announcements or documents posted on school or college WEB sites, departmental meetings, and open forums to communicate the plan's progress to the faculty. Departmental meetings were the most-used venue with 97% noting moderate to extensive use, followed by 78% noting moderate to extensive use of the open forum, and 68% noting moderate to extensive use of e-mail or campus mail. The least used venue was WEB sites with 74% reporting no use.

The length of time in which the revised plans had been in operation at the six schools varied, in that 49% of the plans had been revised between 1995 and 1998, and 30% were revised during 1999 or 2000. A total of 62% of the administrators reported it took 12 months to complete the plan modifications while 14% indicated their plan revision required 18 months. When asked to respond to an open-ended question about reasons for the process taking longer than projected, administrators consistently noted that gaining consensus and assuring faculty buy-in were the primary reasons for the delay.

Strategies: Successful and Unsuccessful

Administrators responded to an open-ended question requesting their identification of the top two procedural strategies or actions that led to the successful development and/or implementation of the revised compensation plan. While responses varied by medical school, the strategies or actions cited most often as successful were faculty input and involvement, clear and frequent communication, and strong executive leadership from the dean and/or associate dean. Also noted as successful strategies or actions were the dean's commitment that the status of current faculty would not change, and a commitment that current faculty salaries would not drop by more than a set percentage during the first, transition year of the plan. Administrators also cited as positive actions the acknowledgement by medical school faculty of the financial need to limit supplements, and the opportunity provided to the departments to develop their own plans to fit within the overall college plan.

The most cited strategies or actions viewed as blocking or impeding the compensation plan implementation centered around resistance to change and issues of trust. Administrator comments focused on faculty resistance, faculty suspicion, and the faculty members' fear that the plan was a ploy to reduce salaries. Also noted as negative strategies or actions were lack of a unified vision by department leaders, poor communication to faculty other than the chairs, and concern that clinical activities would increase while decreasing other activities such as research and teaching.

Impacts of the Revised Plan

Of interest to this study were the perceived consequences of the compensation plan on various elements of the medical school, such as tenure policies, the component of salary guaranteed by tenure, and individual salaries as a result of instituting productivity measures. The study was also interested in determining if the revised compensation plan had any perceived consequences on the role of department chairs, and on faculty time commitment to, and quality of engagement in, various academic activities.

In regard to tenure policies, all six medical schools reported having a tenure system applicable to both basic science and clinical faculty. The University of New Mexico School of Medicine plan is the only one of the six which specifically addresses the issue of compensation and its relation to tenure. One of the guiding principles set forth in the written plan was that the compensation plan should explicitly define the relationship between tenure and compensation for the school of medicine faculty. An excerpt from the plan notes:

Because the SOM is a component of a university that grants tenure, a serious question arises concerning the portion of an individual's salary that is related to ("guaranteed by") tenure. The SOM has no policy on this question. Neither does UNM. The lack of a policy relating tenure to compensation exposes the SOM to great financial risk, which limits flexibility.

The faculty compensation plans at both the University of Colorado School of Medicine and the University of New Mexico School of Medicine reference tenure in

notations about the current compensation structure limiting the flexibility of administration to change salaries in the face of a volatile fiscal environment. Both plans noted that the need for flexibility was driven in large measure by the small percentage of salary support derived from state and tuition dollars.

The narrative of both plans indicated that the small fraction of faculty salaries paid by state funds and the increasing variability of clinical and research funds were putting the medical school in a vulnerable position. For instance, the University of Colorado School of Medicine cited the state and tuition support allocated to the medical school in 1994-95 (the year the plan revision was initiated) was \$18.4 million while the total faculty salary obligations to medical school faculty exceeded \$100 million. The document noted that currently the only option available to the school to respond to funding shifts was to terminate the employment of faculty. Thus, these factors were the drivers for a policy that more clearly defined the portion of faculty salaries guaranteed by tenure.

According to the AAMC Faculty Personnel Policies Survey Report (1999), tenure at each of the six medical schools carries with it a guarantee of continuous appointment at the designated faculty rank. However, the institutional financial commitment to tenured faculty varied among the schools (Table 3).

The University of Texas Medical Branch-Galveston and the University of Texas-Houston medical schools reported no specific financial guarantee associated with the award of tenure, while the University of Arkansas School of Medicine reported their tenure guarantee is not clearly defined by policy. The medical schools at the University

of Colorado, the University of New Mexico, and the University of Oklahoma reported that in addition to continuous appointment at the designated faculty rank tenure was associated with a specific financial guarantee.

The three medical schools providing some financial guarantee varied in their definition of what component of salary was guaranteed (Table 3). The University of Oklahoma College of Medicine guaranteed the base salary that is derived from university or state funds. The University of New Mexico School of Medicine indicated a guarantee of base salary otherwise defined, and the University of Colorado School of Medicine indicated the financial guarantee was an amount referenced to an internal standard.

Table 3 Financial Guarantees Associated with Tenure

Financial Guarantees Associated With Tenure	
	Institution
Appointment At a Designated Faculty Rank and:	
No specific financial guarantee	Texas-Galveston Texas-Houston
A specific financial guarantee	Colorado New Mexico Oklahoma
Guarantee not clearly defined by policy	Arkansas
Nature of the Specific Financial Guarantee:	
Base – equivalent to state funded portion of salary	Oklahoma
Base – as otherwise defined by policy	New Mexico
An amount tied to an internal standard	Colorado

Source: AAMC Faculty Personnel Policies Survey Report, 1999

In response to whether the revised compensation plan more clearly defined that portion of salary the institution guarantees to a tenured faculty member, an overall 53% of the administrators indicated that it did not. However, administrators at two institutions clearly indicated the plan was responsible for a more clearly defined tenure guarantee—the University of Colorado School of Medicine (100%) and the University of New Mexico School of Medicine (71%).

In response to an open-ended question asking them to describe the change in tenure guarantee, medical school administrators at Colorado indicated the base was more clearly defined as the portion of salary for which the institution was responsible, and that the effect of this change in tenure guarantee reduced the financial value of tenure from the entire salary, which was guaranteed pre-1996, to an institutionally determined base salary (tied to 70% of the salary of basic sciences faculty by rank). The University of New Mexico's medical school administrators noted that the new definition of the salary guaranteed by tenure (i.e., base at 85% of contract salary) required that 15% of their previously guaranteed salary was now at risk.

In response to whether the new compensation plan was applicable to new faculty recruits only, thus “grandfathering” or holding harmless the salary of the current faculty employed when the plan was implemented, only the medical schools at the University of Colorado and the University of New Mexico indicated in the affirmative. At the other four medical schools, the new plan, and placement of some component of salary at risk, was applicable to all faculty, including currently-tenured faculty. Of these, the medical school administrators at the University of Arkansas, the University of Texas Medical

Branch-Galveston and the University of Texas-Houston reported that the salary of one or more tenured faculty was decreased during the plan's first year as a result of the new base or benchmarked salaries.

In response to a related question, 29% of the administrators at the University of Colorado School of Medicine reported that while no change occurred in tenured faculty salaries during the plan's first year, some tenured faculty have experienced salary decreases in subsequent years. Taking into consideration all institutions in the study, the maximum a faculty member's overall salary can be reduced in a given year ranged from zero to over 20%. Of the respondents, 24% limited reductions to 0-10%, 33% limited reductions to 11-20%, and 12% allowed reductions of over 20%.

Of interest to this study was the relationship between productivity and compensation. Overall, 88% of the administrators agreed that the revised compensation plans more directly linked compensation with productivity. When offered an opportunity to indicate in which academic areas the compensation plan most closely linked compensation to an individual's productivity, 60% of the administrators reported that clinical productivity was "completely" linked to compensation. A total of 76% of the administrators reported that teaching was "somewhat" linked to compensation while 79% reported research was "somewhat" linked .

Each of the plans called for the departments to develop the productivity measures and have the majority of the faculty agree upon them. Of the administrators responding to who was involved in developing the productivity measures, 56% reported the dean and administration had "extensive" involvement, 56% noted the department chairs had

“extensive” involvement, while only 33% of the respondents cited the faculty as having “extensive” involvement.

In response to questions related to whether or not faculty salaries had been reduced when an individual faculty member did not meet his or her individual productivity measures, 56% of the administrators answered yes, 22% answered no, and another 22% indicating they did not know. A similar question asked if administrators were aware of any tenured faculty who resigned or sought early retirement rather than face continued percentage reductions in their salary. A total of 10% reported yes, 45% reported no, while another 45% indicated they did not know. Administrators at the University of Arkansas School of Medicine and the University of Texas Medical Branch-Galveston indicated that, to their knowledge, there had been tenured faculty at their institution who chose to resign or retire early rather than have their compensation continue to be reduced for lack of meeting productivity goals.

Each of the medical schools’ compensation plans called for rather extensive annual evaluation by the department chair of the faculty member’s contributions to the clinical, educational, and scholarly missions and administrative needs of the division, department, school/college, and health sciences center. The plans also required that the departments define for each faculty member what constitutes poor, adequate, and superior performance. The plans as written imply an increased burden on the department chairs to evaluate, set goals, apply the plan’s productivity measures, and adjust salaries.

When asked to indicate which functions the department chairs were required to complete under the revised plan, the most cited action (78%) was meeting with faculty

for the annual setting of goals and expectations, next (76%) was being specific with faculty members regarding roles, measures of performance, tracking systems, and compensation arrangements, and third (71%) was providing constructive options for improving productivity where possible. Despite the significant role of these functions in carrying out the terms of the faculty compensation program, 60% of the administrators reported that chairs were not provided training in the development of goals and objectives, or in methods to evaluate faculty performance.

Several questions related to the extent to which the revised compensation plan impacted the role of the chairs. In response to whether the new plan changed the chair's role in regard to compensation of faculty, 12 of the 41 administrators (29%) reported no change, 13 administrators (32%) reported reduced flexibility and subjectivity, and 16 administrators (36%) reported increased flexibility and subjectivity. Similarly on the chair's role of accountability for finances, 16 of the 41 administrators (39%) reported the new plan imparted no change, 10 of the administrators (24%) cited reduced flexibility and subjectivity, while 14 of the administrators (34%) cited increased flexibility and subjectivity. The majority of the administrators (63%) did indicate that chairs at their institutions had been willing to decrease a faculty member's salary when goals or productivity measures were not met.

Consequences of Change

Of keen interest to this study were the possible impacts of the revised, productivity-based compensation plan on faculty member's engagement in key academic activities (Table 4). In regard to faculty time commitment to teaching, 45% of the

administrators noted no change in faculty time commitment, while 30% felt the time commitment decreased. Administrators were evenly divided in their perceptions of whether the time commitment to research had changed, with 38% citing no change and 38% citing an increased commitment. It was interesting to note that although the University of New Mexico School of Medicine's new plan placed 100% of the research faculty's salary at risk, 57% of the administrators reported they had seen no change in faculty commitment to research.

In regard to faculty commitment in the categories of service on committees, willingness to mentor junior faculty and willingness to assume administrative duties, 54% cited no change in each of the three categories. The category reported as most impacted by the productivity-based compensation plan was time commitment to patient care. Overall, 67% of administrators noted an increased commitment to patient care as a result of implementing more-defined productivity measures. The medical schools reporting a significant increase in the time commitment of faculty to patient care were the University of Arkansas, the University of Colorado, and the University of Oklahoma at 83%, 86% and 83%, respectively.

No significant impact was reported relative to the productivity-based compensation plan's effect on faculty members' quality of engagement in academic activities. Overall, administrators reported no change in the quality of teaching (63%), research (58%), service on committees (75%), willingness to mentor junior faculty (70%), willingness to assume administrative duties (60%), and patient care (51%). The only medical school to vary from these responses was the University of Oklahoma with

57% of administrators indicating they felt faculty had increased the quality of engagement in patient care.

Table 4 Impact of Productivity-Based Compensation Plans on Academic Activities

Impact of Productivity-Based Compensation Plans on Academic Activities	Time Commitment By Faculty		Quality of Engagement By Faculty	
	Responses	%	Responses	%
Teaching				
No change	18	45	25	63
Commitment increased	5	14	5	13
Commitment decreased	12	30	6	15
Patient Care				
No change	5	14	19	51
Commitment increased	24	67	13	35
Commitment decreased	2	6	0	0
Research				
No change	15	38	23	58
Commitment increased	15	38	11	28
Commitment decreased	7	18	2	5
Service on Committees				
No change	21	54	30	73
Commitment increased	2	5	1	3
Commitment decreased	12	31	5	13
Willingness to Mentor Junior Faculty				
No change	21	54	28	70
Commitment increased	3	8	1	3
Commitment decreased	8	21	4	10
Willingness to Assume Administrative Duties				
No change	21	54	24	60
Commitment increased	6	15	5	13
Commitment decreased	8	21	6	15

Outcomes and Goal Achievement

Each of the compensation plans described goals and objectives that the medical school hoped to achieve by implementing a revised faculty compensation plan and

structure. While differing somewhat at each institution, the goals and objectives can be categorized as relating to faculty recruitment and retention, institutional financial stability, and institutional mission (teaching, research, service). Primarily the medical schools indicated their main goals and objectives were to encourage and reward high quality work, link each component of professional activity to a component of salary, provide fair compensation to faculty while assuring that the school/college retains earnings sufficient to secure its financial viability, provide the school/college with fiscal flexibility in a volatile environment, and align faculty compensation with departmental financial resources.

Of interest to this study was whether the medical schools were monitoring these key objectives or outcomes and, more importantly, whether the objectives or outcomes associated with implementing the revised faculty compensation plan had been achieved (Table 5).

Overall, the respondents indicated that successful outcomes had eluded them to this point. For each of the twelve objectives or outcomes listed in the survey, an average of 85% of the administrators reported the objectives/outcomes had not yet been achieved. Goal achievement was not affected by whether the institutions were formally monitoring the plan's progress or not.

Of the administrators citing success, 37% reported the outcome of aligning faculty compensation with departmental financial resources as having been achieved. And 34% indicated that the outcome of providing fair compensation to faculty while assuring the

school/college retains earnings sufficient to secure its financial viability had been successfully achieved.

Table 5 Status of Outcomes and Goal Achievement

Status of Desired Outcomes and Goal Achievement	Outcome Achieved		Not Yet Achieved, But Formally Monitored		Not Achieved Nor Monitored	
	No.	%	No.	%	No.	%
Desired Outcome/Objective						
Encourage and reward high quality work	9	22	14	34	18	44
Link each component of activity (teaching, research, service) to a component of salary	5	12	15	41	21	51
Encourage faculty to work in collaborative partnerships	1	2	12	29	28	68
Make faculty salaries competitive	10	24	16	39	15	37
Protect the financial interests of all parties	10	24	15	37	16	39
Provide fair compensation while assuring school retains sufficient revenue to secure financial viability	14	34	18	44	9	22
Provide school with financial flexibility in a volatile environment	9	22	17	42	15	37
Align faculty compensation with departmental resources	15	37	14	34	12	29
Recognize teaching responsibilities	7	17	16	39	18	44
Increased competition for research funding	8	20	17	42	16	39
Change in clinical income/payer mix	1	2	20	49	20	49
Explicitly define the relationship between tenure and compensation	9	22	9	22	23	56

Administrators were also asked to indicate to what extent faculty had been accepting of the changes resulting from the revised compensation plan. Overall, 10% reported the faculty were “somewhat accepting”, with another 67% reporting “mostly accepting”, and 8% indicating complete acceptance. Only 5% indicated the faculty were not at all accepting of the changes, while 10% indicated they “did not know”.

Administrators were given the opportunity to respond to an open-ended question asking their opinion of the most positive and the most negative outcome(s) of the revised compensation plan. While responses varied by medical school, the positive outcomes cited most often were increased productivity and accountability, more direct link between faculty activities and their compensation, greater flexibility, and higher salaries for productive researchers. Also noted as positive outcomes were the plan’s attempt to reward performance and encourage revenue generation and to provide a tool to evaluate faculty and determine salary changes.

The negative outcomes most cited by administrators related to their perception of the plan’s impact on teaching. Many commented that the productivity-based compensation structure decreased the focus on teaching, in that faculty working at maximum capacity are torn between teaching and spending more time in the clinic. The educational mission, including teaching and research, has suffered, and the plan makes the medical school too much like private practice. The administrators also noted as negative outcomes that a productivity-based compensation plan removed the incentive for faculty to work in less productive areas, that morale had declined while the fear factor

and suspicion of administrators' motives had increased, the plan was flawed, and was inconsistently applied among departments.

Faculty Responses

This study attempted to sample faculty attitudes about changes in the compensation plans, determine their participation in the development of the revised compensation plans, their perception of the plan's fairness and equity, and their opinion of the positive and negative outcome(s) of the plan. Overall, 382 faculty from the six medical schools responded to the questionnaire, representing a response rate of 31.8%. The faculty respondents included 103 (27%) from the basic science departments and 279 (73%) from the clinical departments.

In response to whether the faculty felt well informed about the process and intent of the compensation plan revision, an overall 56% of the faculty respondents indicated they did not feel well informed. However, this perception varied by institution and between basic science and clinical respondents at the same institution.

The medical school faculty at the University of Colorado and the University of New Mexico reported they were well informed, 74% and 64%, respectively. Data from the University of Arkansas School of Medicine revealed a distinct difference of opinion on this topic between the basic science faculty and the clinical faculty. A total of 80% of the Arkansas basic science respondents indicated they were well-informed, while 35% of the clinical respondents indicated they were well-informed.

It is of further interest to note that the overall faculty response to this question was in direct contrast to the overall administrator response. While an overall 56% of the faculty respondents indicated they did not feel well-informed about the process and intent of the compensation plan revision, an overall 60% of the administrators reported that faculty at their institutions were well-informed through a clear communication plan.

As far as providing input into the plan's revisions, 60% of the overall faculty respondents reported neither they nor their colleagues had input into the plan's revision. Faculty respondents at the University of Colorado School of Medicine and the University of New Mexico School of Medicine reported the most involvement of themselves and their colleagues with the plan's revision at 65% and 73% respectively.

Again, the overall faculty response to the degree of faculty involvement in the process is opposite of the administrators' overall response. Over 80% of the administrators reported a high level of faculty involvement through providing input and proposing solutions.

In regard to whether faculty perceived the revised compensation plan to more directly link compensation with productivity, slightly more than half responded in the affirmative with 58% of respondents indicating there was a link. However, the responses varied from 74% of faculty respondents at the University of Arkansas School of Medicine indicating there was a link between compensation and productivity, to 29% of faculty respondents at the University of Texas Medical Branch-Galveston reporting a link.

Also of interest to this study was whether the faculty members felt the revised compensation plan had any affect on their time commitment to various academic

activities. Overall, faculty respondents indicated the compensation plan had not altered their time commitment to teaching (71% reported no change), patient care (66% reported no change), research (66% reported no change), service (73% reported no change), nor in their willingness to mentor junior faculty (77% reported no change) or add administrative duties (62% reported no change). This data mirrored the overall perceptions of the medical school administrators on this issue as well.

It was also of interest to determine if the new compensation package had influenced the decision of the faculty to remain at their institution. In all, 80% of the respondents indicated the plan had no influence on their decision to remain at the institution. This response was consistent across the six medical schools.

When asked about their perception of whether the revised compensation plan was an improvement, more fair than the previous plan, and applied equitably, the overall responses were fairly evenly divided. The plan was not viewed as an improvement over the previous plan by 51% of the faculty respondents, and 55% reported it was not as fair as the previous plan. A total of 60% of the faculty respondents responded that the plan was not applied equitably.

When asked to respond to an open-ended question regarding the most positive and the most negative outcome(s) of the revised compensation plan the faculty respondents were prolific in their comments. While responses varied by medical school, the positive outcomes cited most often were an increased link between compensation and productivity, more attention focused on productivity, more awareness of roles and responsibilities and a greater emphasis on time management, an attempt to hold everyone

to some standard, regular performance reviews, and a more explicit description for faculty of the components of salary. Also cited as positive outcomes were the ability to adjust based on work/productivity, better allocation of monies within the division, a sense of competition, and reward for excellence, more visibility of the flow of money within the department, more incentive to complete clinical responsibilities and more involvement with patient care.

Responses attributed to the basic science faculty indicated the positive outcomes of the research incentive component of the plans were a measurable increase in research funding to the institution, increased motivation to obtain research grants, and increased rewards/compensation for those on grants. They also cited as positive outcomes the opportunity for the department to provide competitive compensation to recruit and retain research faculty, and more funds coming into the institution from external agencies. Comments from both basic science and clinical faculty highlighted the stronger relationship between effort and pay defined by the revised compensation plan—"more faculty are on campus at 5:00 p.m. than ever before," "has resulted in more personal career satisfaction from increased compensation," and "is a way to increase base salaries in view of very modest salary increases of 2-3% per year."

Faculty respondents also noted the impact of productivity-driven compensation on those whom they deemed to be less productive—"we needed a method to keep people productive," "pay for work done not years of service," "some positive feedback for increasing productivity helps with lethargic faculty," "low producers have target goals," and "has helped remove some people (dead wood) that needed to retire long ago."

The negative outcomes of the revised compensation plan varied. Generally, however, the negative comments from the faculty at the six medical schools related to concerns about the academic mission, the impact of increased competition among colleagues, and the over-quantification of academic activities. There were also questions as to whether the plan actually links productivity to compensation.

Of these negative outcomes, the ones cited most often related primarily to the academic mission of teaching at the medical school. These concerns mirrored the negative outcomes most reported by the administrators—“disincentive for teaching,” “diminished importance of teaching,” “no rewards for teaching,” and “loss of focus on academic mission.” Faculty also noted as negative outcomes “more time with patient care and less time with students,” “focus on dollars generated not academic values,” and frequently referenced difficulty recruiting for the medical school curriculum with the focus being on patient care and research.

Faculty respondents also cited increased competition among colleagues as a negative outcome. They noted the plan has fostered competition between faculty for private patients, is devisive, results in more pressure to see as many patients as possible, and has created a division in the department between those who do research and those who see patients and teach. One individual lamented, “effort isn’t rewarded. Very busy clinicians are being paid less than researchers who have time to jog at lunch and read journals!”

Faculty at all six institutions denounced as a negative outcome the focus on quantification of effort and the additional paperwork required to document their activities

under the revised productivity-based compensation plans. Many cited it was stressful trying to figure out how the plan works, a waste of time counting the hours spent on certain activities and often led to “faculty looking for easy, non-scholarly ways to acquire credits (i.e., RVUs)” and to bad feelings among faculty and between faculty and administration. Others noted, “everyone counts everything they do and wants to know what the ‘pay off’ is to them. If it isn’t obvious, faculty object to doing things that they are not compensated for,” and “people grab to receive ‘credit’ for what ‘they’ do. Some have become very critical of the ‘value’ of what others do.” Other related comments were, “chairs and deans have become preoccupied with bean-counting and spend less time on more important issues,” and “micro-management in the dean’s office has placed excessive faith in quantitative measures that are meaningless.” And, finally, one individual noted the plan had “a severe negative impact on morale—if I wanted to work on commission, I’d sell Amway.”

An overall total of 42% of the faculty respondents indicated the revised compensation plan did not directly link compensation to productivity. The written comments by the faculty respondents confirmed a perception that the plan did not really link productivity and compensation, and as noted by one faculty member, “unfortunately perceptions and plans do not necessarily result in the outcomes intended.” Individuals at four different medical schools commented that “the new plan is a sham. Everybody makes what they made before,” “nothing has changed, you’re still paid in proportion to your grant income,” “in my department the plan was developed and implemented by senior faculty and as such was designed to maintain the status quo, thus there is no link to

clinical or research productivity,” and “compensation is still applied unequally. It is based on how much you do for the chairman’s pet projects.”

Summary

Data gleaned from the medical schools in this study indicate the schools have modified their faculty personnel policies to reflect the uncertain economic environment in which they operated, and to define more clearly the relationship between faculty compensation, individual productivity, and/or the financial stability of the department or college.

Chapter V
DISCUSSION
Introduction

The current fiscal crisis in academic medical centers is placing tremendous pressure on medical school leaders to re-examine and change the employment policies applicable to faculty members in their institutions. The pressure emanates from the tightening by private insurers on the amount they will pay for hospital care and from the reduction in Medicare fees and teaching subsidies due to the Balanced Budget Act of 1997 (Dickler, 2000, Eisenberg, 1999). In consideration of the many financial pressures facing the nation's medical schools, the obvious question has become—how will these changes affect the way medical school faculty are compensated?

This study was undertaken to examine, describe, and explore how six medical schools in the midwestern United States revamped their faculty compensation systems to address these financial realities. More specifically, the study attempted to determine 1) what changes had been made to the compensation plans, 2) what impact, if any, the compensation plan changes had on the portion of faculty salary which was guaranteed by tenure, and 3) what impact, if any, the compensation plan changes had on the faculty members' time commitment to, and quality of engagement in, the academic activities of teaching, research, patient care, service on committees, and willingness to mentor junior faculty and willingness to assume administrative duties.

Summary of Major Findings

The six medical schools in this study have followed the national trend in medical school compensation by revising their compensation structures to more closely align salary with performance, and to link each component of salary to a component of professional activity (teaching, research, patient care, service). These new plans more closely resemble the long-standing salary programs for physicians in private group practice. For some time private group practice management has attempted to quantify the level at which an individual physician contributes to the success of the clinical department and to provide compensation commensurate with that contribution (Stern, 2000). The new plans, to the chagrin of many, also reflect a closer alignment of the business practices in academic medicine with those of private business. As noted by Deane & Nussbaum (2001) medical school compensation plans “are like private practice incentive plans except cloaked in academia” (p. 13).

The revised plans at the six institutions also provide the school with the flexibility to make adjustments to a faculty member’s salary from year to year with the establishment of variable pay components. The salary could more easily be increased due to performance or to the reality that schools have to pay faculty in certain specialties more than others, or could be decreased due to diminished productivity. In addition, the new plans attempt to be more clear about the requirement that the medical school faculty share in the financial risks of their department by linking some components of faculty salary to the financial success of the department.

These findings are consistent with those reported by Jones and Gold (1998) who noted a movement among medical schools toward compensation plans that linked pay for specific academic tasks (i.e., teaching, research, patient care) to measures of individual and department productivity. The findings also mirror those cited by Bodner (1997) who reported that medical schools were being more clear than in the past about defining what pay was for, about the faculty member sharing in the financial risk with the department or section, and creating a framework in which pay could be reduced when productivity measures were not met.

The reasons for modifying the compensation plans were fairly consistent among institutions and were primarily linked to a desire to maintain or improve institutional financial stability. The rationale presented in the majority of the compensation plans reflected a recognition that these medical schools, like others across the nation, were functioning with a surprisingly fragile financial underpinning (Jones, 1997; Korn, 1996). Respondents indicated the modifications were necessary because their medical school revenues were subject to future volatility, especially in light of changes in the health care environment and reduced federal support for research. The reason for revising the plan cited most often by respondents was the desire to provide fair compensation to faculty while at the same time assuring that the medical school or college retained sufficient earnings to secure its financial viability and strength in the decades ahead.

Overall, the faculty respondents indicated they did not feel well-informed about the process undertaken by their institutions to modify the compensation plan nor were they well-informed as to the intent of the revisions. A majority of the faculty reported

neither they nor their colleagues had input into the plan's revision. On the other hand, a majority of the administrators were of the opinion that the faculty at their institution were well-informed through a clear communication plan.

In regard to whether the revised compensation plan was an improvement, more fair than the previous plan, and applied equitably, faculty presented mixed views. Roughly half of the faculty respondents felt the plans were not an improvement, were not as fair as the previous plan, nor were they applied equitably. The faculty and administrators who viewed their new compensation plans as an improvement over the previous plans were also the respondents who reported that the processes to develop and revise the plans at their institutions were open and inclusive of all faculty. This correlates with the findings of Goodman (1998) who noted that "the level of faculty involvement from the earliest stages of discussion of faculty compensation strongly correlates with the level of faculty satisfaction in the proposals" (p. 6).

Several of the medical schools used the plans' revisions as an opportunity to clarify what portion of a faculty member's salary is guaranteed by tenure, while other plans were silent on the issue of tenure and its guarantee and appear to leave the issue unresolved. Interviewees at medical schools that addressed this issue reported that the lack of a clear policy was resulting in problems for the medical school that could only be remedied by defining what portion of salary was guaranteed by tenure. These schools reported struggling with tenure guarantees that were not defined or were difficult to determine due to wide fluctuations of salaries both within departments and between departments, and with the largely unfunded salary obligation to current faculty.

Of the three medical schools that defined the specific financial guarantee associated with tenure, one guaranteed that portion of salary that was derived from university or state funds, while another guaranteed a base salary as defined in the revised policy (i.e., 85% of annual contract salary). The third institution defined the tenure guarantee as equal to an internally-referenced standard—70% of the average salary of the school's basic science faculty members. These findings are consistent with those of Jones and Gold (1998) in their study of personnel policies at the nation's 125 medical schools.

At the three schools whose plans more clearly defined a tenure guarantee the impact was to define the base salary as that portion of salary for which the institution was responsible. At two of the three institutions, the new plans did alter the financial value of tenure from what it had been previously. Administrators and faculty from these two institutions reported they worked together to develop compensation plans that defined a guaranteed base salary that was less than full salary for most faculty members. One institution reduced the financial value of tenure from the entire salary, which was guaranteed pre-1996, to an institutionally-determined base salary—tied to 70% of the average salary of basic sciences faculty by rank. The second institution required 15% of the previously-guaranteed salary to be at risk.

The two medical schools that altered the financial value of tenure were the only ones in the study that chose to exempt the faculty on board at the time of the new plan's revision from the requirements of the new plan. These schools determined the new compensation plan to be applicable to new faculty recruits only, thus "grandfathering" or

holding harmless the salary of the current faculty when the plan was implemented. The existing level of financial guarantee for current faculty was honored; however it was to be held constant until such time as the revised tenure guarantee, now applicable to new faculty recruits, met or exceeded that level. In a study of compensation plans, Goodman noted (1998), “perhaps the most important factor in winning faculty support was a nod to self interest: all current faculty were grandfathered in” (p. 9).

At the other four medical schools, the new plan, with its placement of some component of salary at risk, was applicable to all faculty, including currently tenured faculty, leaving no one “grandfathered.” Three of these four medical schools reported that the salary of one or more tenured faculty was decreased during the plan’s first year as a result of the new base or benchmark salaries. Even those institutions that held harmless current faculty during the plan’s first year of implementation reported that some tenured faculty had experienced salary decreases in subsequent years.

In their 1998 study, Jones and Gold reported that approximately 80% of the new appointments of clinical faculty in U.S. medical schools are tenure ineligible. Medical school administrators in this study also indicated during interviews that fewer clinical faculty were being hired on the tenure track, thus lessening the requirement for an institutional guarantee to that group of faculty whose salaries were more affected by the volatility of the health care environment. Faculty at these institutions were being hired into a distinct faculty track for clinical faculty whose primary duties are patient care and medical student and resident teaching. These findings are consistent with those reported in the *AAMC 1999 Faculty Personnel Policies Survey Report*.

Of particular interest to this study was whether or not the implementation of compensation plans which linked components of compensation with achievement of productivity measures would lessen a faculty member's time commitment to, and quality of engagement in, key academic activities (teaching, research, patient care, and service). A large majority of both medical school faculty and medical school administrators reported either no change or an increased commitment by the faculty to the areas of teaching, research, service on committees, or willingness to help junior faculty or willingness to assume administrative duties since the revised compensation plan implementation. The one category reported as most impacted by the productivity-based compensation plan was time commitment to patient care. Respondents reported an increased time commitment to patient care as a result of implementing more defined productivity measures. No significant impact was reported relative to the consequences of the compensation plan on faculty members' quality of engagement in academic activities.

The study was also interested in determining faculty and administrator perceptions as to the positive and negative outcomes of the revised compensation plan. Both faculty and administrators were prolific in their written comments. While responses varied by medical school, the positive outcomes cited most often related to increased productivity and accountability, a more direct link between faculty activities and their compensation, more awareness of roles and responsibilities, and a greater emphasis on time management.

Also noted as positive outcomes were the plans' attempt to reward performance and encourage revenue generation, provide an incentive to complete clinical responsibilities, hold everyone to some standard, and to provide a tool to evaluate faculty and determine salary changes in a rational manner. Faculty also expressed hope that the productivity-driven compensation plans would perhaps motivate their less productive colleagues.

The negative outcomes cited most often by both faculty and administrators related to their perception of the plan's impact on teaching and the academic mission. There were many comments expressing concern that the productivity-based compensation structure decreased the focus on teaching, that faculty working at maximum capacity are torn between teaching and spending more time in the clinic, and that the time commitment to patient care had increased at the expense of time spent with students. Several noted concerns related to difficulty recruiting for the medical school curriculum with so much focus being on the more lucrative, money-making activities of patient care and research, and that the plans removed incentives for faculty to work in less productive areas.

These expressions mirror those cited by Eisenberg (1999) in that clinical faculty at medical schools reported feeling overburdened by the need to meet productivity measures, and that the satisfactions they sought in choosing academic careers were vanishing. Eisenberg also noted that "because clinicians are expected to maximize clinical income, the time they devote to teaching is regarded as a loss leader by the heads of their clinical units" (p. 28).

Medical school educators have expressed concern about the impact of productivity-based compensation structures and mission-based management on the quality of clinical education and are calling for a renewed recognition of the importance of teaching (Fincher, Simpson, Mennin, Rosenfeld, Rothman, McGrew, Hansen, Mazmanian, & Turnbull, 2000). Mission-based management requires that the schools track the allocated effort of each faculty member by mission (teaching, research, patient care) and tie it to productivity measures specific to that mission. Its purpose is to reveal faculty effort not well spent and provides the chairman with quantified data to support redirection of faculty efforts (Griner, et al., 2000).

Also noted as a negative outcome was a sense that competition between faculty had increased since the compensation plan's inception. Faculty noted that the plan fostered competition between faculty for private patients and that clinical faculty were pushed to see as many patients as possible. They noted that such pressures had created a division in the department between those who do research and those who see patients. Recognition of these same pressures affecting medical schools across the country was reflected in the AAMC's 1999 Annual Report in which Peck noted:

...new initiatives aimed at preserving and enhancing our clinical enterprise paradoxically challenge our fundamental academic missions, thereby creating new tensions among our faculty (p.3).

And finally, faculty at all six institutions denounced as a negative outcome the focus on quantification of efforts and the additional paperwork required to document their activities under the revised productivity-based compensation plans. They lamented the

time consumed counting hours of certain activities and the negative behavior which seems to have been fostered by such “bean counting.” Many noted the unintended consequence of productivity measures as encouraging faculty to look for easy, non-scholarly ways to acquire credits and everyone counting everything they do and questioning what is the “pay off” to them for doing those activities. Some equated the productivity-based compensation plan with working on commission.

Each of the compensation plans described goals and objectives that the medical school hoped to achieve by implementing a revised faculty compensation plan and structure. The goals and objectives of the compensation plans generally related to the areas of faculty recruitment and retention, institutional financial stability, and institutional mission (teaching, research, patient care). The most cited objectives were to encourage and reward high quality work and to provide fair compensation to faculty while assuring that the school/college retains earnings sufficient to secure its financial viability.

Overall, the respondents indicated that successful outcomes had eluded them to this point. For each of the twelve objectives or outcomes listed in the survey, an overall 85% of administrators reported the objectives/outcomes had not yet been achieved. Roughly one-third of the respondents did, however, report success with aligning faculty compensation with departmental financial resources, and with providing fair compensation while assuring the school/college retains sufficient earnings to be financially viable.

Conclusions

Based upon the findings of this study, the following conclusions can be reached:

- 1. Medical schools in this study are following the national trend in medical school compensation by revising their compensation structures to align more closely salary with performance and to link each component of salary to a component of professional activity.**
- 2. Three of the medical schools in this study effected a change in institutional tenure policies by more clearly defining the portion of faculty salary guaranteed by tenure.**
- 3. Faculty and administrators registered a distinct difference in perception about whether faculty were well-informed about the process undertaken to modify the plan, and whether faculty were afforded an opportunity to participate in the process. This speaks to the importance of communication and faculty involvement in enlisting faculty support.**
- 4. Despite the more direct linkage of salary in faculty compensation plans with the achievement of productivity measures it was the perception of both faculty and administrators that there had been no significant changes in faculty members' time commitment to, or quality of engagement in, key academic activities such as teaching, research, patient care, service on committees, willingness to mentor junior faculty or willingness to assume administrative duties.**
- 5. Despite an almost equal number of positive and negative outcomes reported as a**

result of the plans' implementation, the majority of the faculty respondents were accepting of the revised plan, and reported its implementation had no impact on their decision to remain at their institution.

Implications of the Findings

Based upon the findings of this study the following implications are posited:

1. Medical school educators might take note of the unintended consequences of linking productivity measures to salary when developing or changing the compensation structure at their schools.
2. Medical school leaders might benefit from knowing that the negative outcomes of the revised compensation plans cited most often by faculty and administrators related to a concern about the decreased focus on teaching and time spent with students.

Future Research

1. Data collection begun for this study should be continued to broaden the sample and increase the total number of participants. This would permit more robust analysis and greater generalizability.
2. While the focus of this study was descriptive, the current data would lend itself to inferential statistical analysis, such as determining whether there is a relationship between time commitment of faculty and quality of engagement in certain academic activities.
3. Other studies could address the following research areas:
 - a. Exploring the trends in faculty appointment, tenure, and compensation

policies specifically focusing on medical school clinical faculty.

b. Exploring the trends in faculty appointment, tenure, and compensation

policies specifically focusing on medical school basic science faculty.

c. Exploring the trends of increasing segmentation of faculty into discrete tracks specifically for clinical education or clinical research.

d. Exploring the trends in mission-based management and the increased adoption of its principles by medical schools across the nation.

With the continued changes in institutional policies and practices at medical schools across the country, further exploration of trends in medical school faculty appointment, tenure, and compensation policies continues to be a viable and relevant research arena.

Bibliography

American Association of Higher Education. (1995, March 21). Higher education association lead new dialogue on tenure. *AAHE News*, 1-4.

American Association of University Professors/Association of American Colleges Commission on Academic Tenure. (1973). *Faculty tenure: A report and recommendations*. San Francisco: Jossey-Bass.

American Association of University Professors. (1977). *AALTP policy documents and reports*. Washington, D.C.: AAUP.

American Association of University Professors Committee A on Academic Freedom and Tenure. (1996, January/February). Tenure in the medical school. *Academe*, 40-45.

American Association of University Professors. (1996, January 17). News release: AAUP creates task force to defend tenure. 1-3.

American Association of University Professors. (1998, June 15). Post-tenure review: An AAUP response. *The Chronicle of Higher Education: Documents* [On-line], 1-13. Available: <http://www.chronicle.com/chedata/focus.dir/data.dir/0615.98/aaup>

Arden, E. (1995, January/February). Is tenure obsolete?: An opinion and a survey. *Academe*, 38-39.

Association of Academic Health Centers. (1999). *Public policy and the marketplace: Hydras for academic health centers*. Washington, D.C.: AAHC.

Association of American Medical Colleges. (1995). *Taking charge of the future: The strategic plan of the Association of American Medical Colleges*. Washington, D.C.: AAMC.

Association of American Medical Colleges. (1998). *Faculty appointment, tenure, and career tracks: 1997 survey of medical school policies* [On-line]. Available: <http://www.aamc.org/findinfo/infores/datarasc/facappt/start.htm>

Association of American Medical Colleges. (1999). *AAMC data book: Statistical information related to medical schools and teaching hospitals*. Washington, D.C.: AAMC.

- Association of American Medical Colleges. (2000). *1999 Faculty Personnel Policies Survey Report* [On-line]. Available: http://www.aamc.org/facpolicy_reports/tabular.cfm
- Association of American Medical Colleges Executive Council. (1993). Academic medicine: The cornerstone of the American health system. *Academic Medicine*, 68 (9), 709-712.
- Association of American Medical Colleges Task Force on Medical School Financing. (1996). *The financing of medical schools*. Washington, D.C: AAMC.
- Babbie, E. (1973). *Survey research methods*. Belmont, Ca.: Wadsworth Publishing Co.
- Barzansky, B., Jonas, H., & Etzel, S. (1996). Educational programs in U.S. medical schools, 1995-96. *Journal of the American Medical Association*, 276 (9), 714-719.
- Begun, J., & Lippincott, R. (1993). *Strategic adaptations in the health professions: Meeting the challenges of change*. San Francisco: Jossey-Bass.
- Bentsen, T. (1997, February). AAMC conference takes a hard look at the realities of faculty tenure. *AAMC Reporter*, 6 (5), 4.
- Bickel, J. (1991). The changing faces of promotion and tenure at U.S. medical schools. *Academic Medicine*, 66 (5), 249-256.
- Bland, C., & Holloway, R.L. (1995, September/October). A crisis of mission: Faculty roles and rewards in an era of health care reform. *Change*, 30-35.
- Blumenthal, D. & Meyer, G. (1993). The future of the academic medical center under health care reform. *The New England Journal of Medicine*, 329 (24), 1812-1814.
- Blumenthal, D. & Meyer, G. (1996). Academic health centers in a changing environment. *Health Affairs*, 15 (2), 200-215.
- Blumenthal, D. & Thier, S. (1996). Managed care and medical education: The new fundamentals. *Journal of the American Medical Association*, 276 (9), 725-727.
- Bodner, G. (1997). Does tenure protect the salaries of medical school faculty? *Academic Medicine*, 72 (11), 966-971.
- Bourne, S., Robertson, T., Trachtenberg, A., & Burnett, D. (1999). *Academic health center clinical enterprise: Growing financial vulnerability*. Washington, D.C.: Association of Academic Health Centers.

- Breneman, D. (1997). *Alternatives to tenure for the next generation of academics: Working paper #14*. Washington, D.C.: American Association for Higher Education.
- Bullough, B. (1973). The Medicare – Medicaid amendments. *American Journal of Nursing*, 73 (11), 1926-1930.
- Burgan, M. (1997, September/October). Tenure and the generation gap. *Academe*, 2.
- Burnham, J. (1982, March 19). American medicine's golden age: What happened to it? *Science*, 215, 1474-1479.
- Butler, W. (1992). Academic medicine's season of accountability and social responsibility. *Academic Medicine*, 67, (2), 68-73.
- Chabotar, K. & Honan, J. (1997). *New yardsticks to measure financial distress: Working paper #4*. Washington, D.C.: American Association for Higher Education.
- Chait, R. (1994, January/February). Make us an offer: Creating incentives for faculty to forsake tenure. *AGB Trusteeship*, 28-34.
- Chait, R. (1995). *New pathways: Faculty employment arrangements for the 21st century*. Washington, D.C.: American Association for Higher Education.
- Chait, R. (1997, February 7). Thawing the cold war over tenure: Why academe needs more employment options. *The Chronicle of Higher Education*, B 4-5.
- Chait, R. (1998). Ideas in incubation: *Three possible modifications to traditional tenure Policies, Working Paper # 9*. Washington, D.C.: American Association for Higher Education.
- Chait, R. & Ford, A. (1982). *Beyond traditional tenure*. San Francisco: Jossey-Bass.
- Cochran, W. (1977). *Sampling techniques*. New York: John Wiley & Sons.
- Cohen, J. (1995). Academic medicine's tenuous hold on tenure. *Academic Medicine*, 70 (4), 294.
- Cofter, W. (1996, January/February). Why tenure works. *Academe*, 26-29.
- Commonwealth Fund. (2000). *2000 annual report*. New York: The Commonwealth Fund.
- Daley, A. (1996, April 19). Why tenure is under attack. *The Chronicle of Higher*

Education, B 3.

- Deane, J. & Nussbaum, S. (2001, March/April). Creating a sustainable physicians compensation plan. *Medical Group Management Journal*, 12-19.
- Dickler, R. & Shaw, G. (2000). The balanced budget act of 1997: Its impact on U.S. teaching hospitals. *Annals of Internal Medicine*, 132, 820-824.
- Eisenberg, L. (1999, November/December). Marketplace Medicine: Rx for disaster. *Academe*, 26-30.
- Epstein, A. (1995). U.S. teaching hospitals in the evolving health care system. *Journal of the American Medical Association*, 273 (15), 1203-1207.
- Evarts, C. (1994). The academic health center: Changing the essence. In J.P. Howe, III, M. Osterweis, & E R. Rubin (Eds.). *Academic health centers: Missions, markets, and paradigms for the new century*. (140-148). Washington D.C.: Association of Academic Health Centers.
- Fincher, R., Simpson, D., Mennin, S., Rosenfeld, G., Rothman, A., McGrew, M., Hansen, P., Mazmanian, P., & Turnbull, J. (2000). Scholarship in teaching: An imperative for the 21st century. *Academic Medicine*, 75, 887-894.
- Fischer, D. (1997, March 3). Taking on tenure. *U.S. News & World Report*, 43-45.
- Foreman, S. (1994). Social responsibility and the academic medical center: Building community-based systems for the nation's health. *Academic Medicine*, 69, (2), 97-102.
- Freidson, E. (1970a). *Professional dominance*. New York: Atherton Press.
- Freidson, E. (1970b). *Profession of medicine*. New York: Harper & Row.
- Gall, M., Borg, W., & Gall, J. (1996). *Educational research: An introduction*. White Plains, N.Y.: Longman.
- Gappa, J. (1997). *Off the tenure track: Six models for full-time, non-tenurable appointments*. Washington, D.C.: American Association for Higher Education.
- Glazer, R. (1999, November/December). How not to reform a medical school: Three case studies. *Academe*, 44-16.
- Goldman, L. (1995). The academic health care system: Preserving the missions as the

- paradigm shifts. *Journal of the American Medical Association*, 273 (19), 1549-1552.
- Goodman, B. (May 11, 1998). Fiscal constraints threaten tenure at medical schools. *The Scientist*, 1-9.
- Griner, P., Heinig, S., Jones, R., Levin, R., Moy, E., Nonnemaker, K., & Valente, E. (2000). Changing the organization and management of research in medical schools. In Association of American Medical Colleges, *Managing change: Strategies from case studies of medical schools and teaching hospitals*. Washington, D.C.: Association of American Medical Colleges.
- Helfand, D. (1995, December 15). Tenure: Thanks but no thanks. *The Chronicle of Higher Education*. B 1-3.
- Herriott, R. & Firestone, W. (1983). Multisite qualitative policy research: Optimizing description and generalizability. *Educational Researcher*, 12 (2), 14-19.
- Hofoss, E. (1986). Health professions: The origin of species. *Social Science & Medicine*, 22 (2), 201-209.
- Holden, C. (1997, April 4). Tenure turmoil sparks reforms. *Science*, 276, 24-26.
- Holsti, O. (1969). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley.
- Honan, W. (1998, January 4). The ivory tower under siege. *The New York Times*. A33.
- Hyman, H. (1963). *Survey design and analysis: Principles, cases and procedures*. Glencoe: The Free Press.
- Iglehart, J. (1994). Rapid changes-for academic medical centers: First of two parts. *The New England Journal of Medicine*, 331 (20), 1391-1395.
- Iglehart, J. (1995). Academic medical center enters the market: The case of Philadelphia. *The New England Journal of Medicine*, 333 (15), 1019-1023.
- Iglehart, J. (1997). Forum on the future of academic medicine: Session II--finances & culture. *Academic Medicine*, 72 (9), 754-759.
- Illich, I. (1976). *Medical nemesis: The expropriation of health*. New York: Pantheon.
- Jessen, R. (1988). *Statistical Survey Techniques*. New York: John Wiley & Sons.

- Jones, R. (1997). *Academic medicine: Institutions, programs & issues*. Washington, D.C.: Association of American Medical Colleges.
- Jones, R. (1987). Clinical-educator faculty tracks in U.S. medical schools. *Journal of Medical Education*, 62, 444-447.
- Jones, R., & Gold, J. (1998). Faculty appointment and tenure policies in medical schools: A 1997 status report. *Academic Medicine*, 73 (2), 212-219.
- Jones, R., & Sanderson, S. (1994). Tenure policies in U.S. and Canadian medical schools. *Academic Medicine*, 69 (9), 772-778.
- Kanuk, L., & Berenson, C. (1978). Mail surveys and response rates: A literature review. In Robert Ferber (Ed.). *Readings in survey research*. Chicago: American Marketing Association.
- Kaslow, H. (1999, November/December). How not to reform a medical school. *Academe*, 51-53.
- Kelly, W., & Stross, J. (1992). Faculty tracks and academic success. *Annals of Internal Medicine*, 116 (8), 654-659.
- Kennedy, D. (1997). *Academic duty*. Cambridge, MA.: Harvard University Press.
- Kish, L. (1965). *Survey sampling*. New York: John Wiley & Sons.
- Korn, D. (1996). Reengineering academic medical centers: Reengineering academic values? *Academic Medicine*, 71, 1033-1043.
- Kovacs, A. (1985). *The research process: Essentials of skill development*. Philadelphia: Davis Company.
- Krakower, J., Ganem, J., & Jolly, P. (1996). Review of U.S. medical school finances, 1994-95. *Journal of the American Medical Association*, 276 (9), 720-724.
- Krakower, J., Williams, D., & Jones, R. (1999). Review of U.S. medical school finances, 1997-1998. *Journal of the American Medical Association*, 282, 847-854.
- Krakower, J., Williams, D., Coble, T. & Jones, R. (2000). Review of U.S. medical school finances, 1998-99. *Journal of the American Medical Association*, 284, 1127-1129.

- Leatherman, C. (1998, June 15). AAUP offers guidance on post-tenure reviews but stands firm on tenure itself. *The Chronicle of Higher Education Daily News* [Online], 1-3. Available:<http://www.chronicle.com/daily/98/06/98061592b.shtml>
- Leedy, P. (1997). *Practical research: Planning and design*. New Jersey: Prentice Hall.
- Lewis, I., & Sheps, C. (1983). *The sick citadel: The American academic medical center and the public interest*. Cambridge: Oelgeschlager, Gunn & Hain, Inc.
- Levy, P., & Lemeshow, S. (1999). *Sampling of populations: Methods and applications*. New York: John Wiley & Sons.
- Licata, C. (1998, June). Post-tenure review: Its meaning and purpose. *AABE Bulletin*, 50 (10), 3-6.
- Licata, C., & Morreale, J. (1997). *Post tenure review: Policies, practices, precautions, working paper # 12*. Washington, D.C.: American Association of Higher Education
- Light, D. (1991). Professionalism as countervailing power. *Journal of Health Politics, Policy & Law*, 16 (3), 499-506.
- Lovejoy, F. & Clark, M. (1995). A promotion ladder for teachers at Harvard Medical School: Experience and challenges. *Academic Medicine*, 70, 1079-1086.
- Magner, D. (1996, February 16). Medical schools consider limiting tenure, cutting salaries. *The Chronicle of Higher Education*, A 18-20.
- Magner, D. (1996, September 20). Minnesota regents' proposals would effectively abolish tenure, faculty leaders say. *The Chronicle of Higher Education*, A 11-12.
- Magner, D. (1997, February 14). A scholar provides an intellectual framework for plans to end or revamp tenure systems. *The Chronicle of Higher Education*, A 10-11.
- Magrath, P. (1997, February 28). Eliminating tenure without destroying academic freedom. *The Chronicle of Higher Education*, A 60.
- Malvey, D., & Slovinsky, D. (March/April 2001). Can academic group practices survive in managed care environments? *Medical Group Management Journal*, 30-37.
- Mangan, K. (1996, July 26). Medical schools are reining in salaries of faculty members. *The Chronicle of Higher Education*, A 16.

- Mandel, H. (1997). Downsizing of basic science departments in U.S. medical schools: Perceptions of their chairs. *Academic Medicine*, 72, (10), 894-900.
- McHugh, P. (1994). A letter of experience about faculty promotion in medical schools. *Academic Medicine*, 69, (11), 877-881.
- McKinlay, J. & Arches, J. (1985). Towards the proletarianization of physicians. *International Journal of Health Services* 1-5, 161-195.
- Mechanic, D. (1991). Sources of countervailing power in medicine. *Journal of Health Politics, Policy & Law*, 16 (3), 485-496.
- Metzger, W. (1973). *Academic tenure in America: A historical essay*. Commission on Academic Tenure in Higher Education, Faculty Tenure, 139.
- Metzger, W. (1990). The 1940 statement on the principles of academic freedom and tenure. *Law and Contemporary Problems*, 53, (3), 3-77.
- Miller, R. (1999, November/December). How not to reform a medical school: Three case studies. *Academe*, 47-50.
- Morone, J. (1994). The bureaucracy empowered. In J. Morone & G. Belkin (Eds.), *The politics of health care reform: Lessons from the past and for the future*. Durham: Duke University Press.
- Moy, E., Valente, E., Levin, R., & Tiner, P. (1996). Academic medical centers and the care of underserved populations. *Academic Medicine*, 71, (12), 1370-1377.
- O'Neil, R. (1996). The meaning and role of tenure in academic medicine. Presentation at the AAMC Conference on Tenure, Compensation and Career Pathways, February 1996.
- O'Toole, J. (1994, May/June). Tenure: A conscientious objection. *Change*, 78-87.
- Parini, J. (1995, July 14). Tenure and the loss of faculty talent. *The Chronicle of Higher Education*, A 40.
- Perley, J. (1997, April 4). Tenure remains vital to academic freedom. *The Chronicle of Higher Education*, A 48.
- Perley, J. (1995, January/February). Problems in the academy: Tenure, academic freedom, and governance. *Academe*, 43-47.

- Powney, J. & Walls, M. (1987). *Interviewing in education research*. London: Routledge & Kegan Paul.
- Rea, L., & Parker, R. (1992). *Designing and conducting survey research*. San Francisco: Jossey-Bass.
- Rothman, A., Poldre, P., & Cohen, R. (1989). Evaluating clinical teachers for promotion. *Academic Medicine*, 774-775.
- Rubin, E. (1998). Making sense of the tenure debate. In E. Rubin (Ed.). *Mission management: A new synthesis*, (187-216). Washington, D.C.: Association of Academic Health Centers.
- Salant, P., & Pulman, D. (1998). *How to conduct your own survey*. New York: John Wiley & Sons.
- Scheaffer, R., Mendenhall, W. & Ott, L. (1979). *Elementary survey sampling*. Massachusetts: Duxbury Press.
- Schuster, J. (1998, January/February). Reconfiguring the professorate: An overview. *Academe*, 48-53.
- Smythe, C., Jones, A. & Wilson, M. (1992). Tenure in medical schools in the 1980s. *The Journal of Medical Education*, 57, 349-360.
- Spellman, M., & Meiklejohn, G. (1977). Faculty tenure in American medical schools. *The Journal of Medical Education*, 52, 623-632.
- Starr, P. (1982). *The social transformation of American medicine*. New York: Basic Books.
- Stern, J. (2000). Successfully implementing a performance-based compensation plan. *Medical Group Management Journal*, 16-19.
- Their, S. & Keohane, N. (1998, March 13). How can we assure the survival of academic Health centers? *The Chronicle of Higher Education*, A 64.
- Torgersen, U. (1972). *The sociology of the professions*. Oslo: University Press.
- Trachtenberg, S.J. (1996, January/February). What strategy should we now adopt to protect academic freedom. *Academe*, 23-25.
- Trow, M. (1967). Survey research in education. In C. Glock (Ed.), *Survey research in the social sciences*. New York: Sage Foundation.

- Trower, C. (1996). *Tenure snapshot*. Washington, D.C.: American Association for Higher Education.
- Trower, C. (1998). *Employment practices in the professions: Working paper #13*. Washington, D.C.: American Association for Higher Education.
- Trower, C. (1999, Winter). The trouble with tenure. *Phi Kappa Phi Journal*, 24-29.
- University Hospitals Consortium. (1995). *Ownership, governance, organization, and leadership of the academic health center*. Oak Brook, Ill.: University Hospitals Consortium.
- Van Alstyne, W. (1994, May/June). Tenure: A conscientious objective. *Change*, 88 -89.
- Van Der Werf, M. (1999, May 28). Georgetown U. settles medical professors' lawsuit over pay policy. *The Chronicle of Higher Education Daily News* [On-line], 1-2. Available: <http://www.chronicle.com/daily/99/05/99052804n.htm>.
- Warwick, D., & Lininger, C. (1975). *The Sample Survey: Theory and Practice*. New York: John Wiley & Sons.
- White, L. (1997). Tenure and creative buyouts in the 21st century. Presentation at mini-symposium on the future of the faculty in microbiology departments.
- Wigton, R. & Waldman, R. (1993). An innovative faculty appointment system at the University of Nebraska. *Academic Medicine* 68 (3), 190-191.
- Wildenthal, K. (1996, Spring). What should we do to preserve our world leadership in medical research and education? *Dallas Business Review* 7, 18-21.
- Wilson, R. (1997, January 10). Bennington, after eliminating tenure, attracts new faculty members and students. *The Chronicle of Higher Education*, A 10.
- Yarmolinsky, A. (1996, May-June). Tenure: Permanence and change. *Change*, 28, (3), 16-20.
- Yin, R. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.
- Zola, I. (1983). *Socio-medical inquiries*. Philadelphia: Temple University Press.

Appendix A
Benchmark Characteristics of
Compensation Plans

MEDICAL SCHOOL-FACULTY COMPENSATION PLANS

134

	School	Effective Date	Components	Base Amounts	Internal/External Benchmark for Base	Performance Based	How perform. measured	Applies to Clin/Basic	Tenured Salary Deferred	Range of Salary Chg Incr/Deer.	Old Plan Implemen. Reduces Salary of Current Faculty
California	Stanford	Effective FY 1999 No salary change until Sept. 1999 (FY 2000)	Base Variable Bonus	Prof. \$180,000 Assoc. 80,000 Asst. 60,000	Internal - basic sciences median	yes	Goals set by chair and faculty = Performance Profile (RVUs, grant volume, public, teaching credits, student satisfaction)	Clinical only	Guarantees the base	Range (A-E) for base + var. + or - 20% change in any one year	No. "X" replaced by "base" and "Y" replaced by "variable". Total salary remains the same but distribution between X "base" and Y "variable" changed.
	U.C. Davis	Medical Comp Plan = July 1, 1994 Gen. Hlth. Sci Comp Plan = June 6, 1989	Med = X = Base Y = negotiated comp Z = incentive bonus Gen. Hlth Sci = Base Negotiated Comp.	Med-Base=By rank and step on UC Davis 11 mo. Hlth.sci faculty scale Gen.Hlth Sci-Base=By rank and step on UC Davis 11 mo. regular faculty scale. Negotiated = Not to exceed: Prof - .33 times base Assoc - .36 times base, Asst-385 times base	Internal U.C. Davis faculty pay scale	Yes		Clinical and basic	Guarantees the base	Incr = 4 times Prof. Step VIII rate (Same for both plans)	
	U.C. San Francisco	February 8, 1993	Med = X = Base Y = negotiated comp Z = incentive bonus Gen.Hlth Sci = Base Negotiated comp.	Med - Base=By rank and step on HlthSci Salary Scale (each dept. must choose from 1 of 9 base salary scales for their entire dept.)	Internal UC-San Fran faculty pay scale	Yes		Clinical and basic	Guarantees the base	Med - Incr= no set max. Gen.HlthSci - Incr=1.825 x base	
Colorado	Colorado	App. Sept. 14, 1995 for implementation July 1, 1996	Base Supplement Incentive Bonus	Base = 70% of av. salary of all basic sciences faculty by rank for prev. year	Internal	yes	Criteria developed by faculty and chairman	Clinical & basic	Guarantees the base	Incr=no limit Decr=up to 15% but not below gear. base	Ten fac=100% of current (95-96) sal to ~base. Base Bases until that base = 70% of sal of basic sci faculty. Contract for-constant sal. increased to end of term.
Connecticut	Yale	July 1, 1996	Base Supplement Incentive Bonus			yes	Clinical produc., qual of res., govt. contracts, small, teaching or admin service	Clinical & basic		+or - 10% but not below base by rank	Yes, if loss of grants
D.C.	GWU		School of Med. Asst Faculty Practice Amt.	30% from SOM 70% from FPP							

School	Effective Date	Comments	Base Amount	Internal/External Benchmark for Base	Performance Based	How Performance Measured	Applies to Clinical	Tiered Salary Bandwidth	Range of Salary Cg Up/Down	Did Plan Implement: Relative Salary of Current Faculty
Florida University of Florida	July 1, 1996 No salary changes until July 1, 1997	Compensation every 3 yr. Performance-based annually	Basic Sci: Prof \$78,000 Asst: \$44,000 Aut: \$5,000 M.D.: By rank & specialty	Basic Sci: AAMC (Table 26), M.D. AAMC Table 9 20% percentile	Yes	Criteria developed by faculty and chairman	All faculty: clinical & basic	No	1% to 10%	
Illinois University of Chicago		Base Ten alternative - Clin. profs. & mod. Admin. alternative Clinical focus			Yes		All full-time Clinical only	Competition the base	Can earn no more than 2 cgs. below prev. in only 1 fiscal year	
Iowa University of Iowa	September 1995	Acad. Svc. Compensation Clin. Svc. Compensation	Rank and specialty	AAMC Salary Data	Yes		All full-time Clinical only	No		
Kansas University of Kansas	July 1, 1996	X = Base adjust every 3 yr. Y = admin. exp. only Z = incentive bonus		60% of AAMC mean for Basic Science faculty 1997-98	Yes		Full-time, clinical and basic	Competition the base	17%, but not below the base (not 10%)	
Maryland Hopkins	As of Spring/Summer 1997, plan was not yet approved by faculty	A: Base B: Supplement C: Incentive Bonus	Prof: \$20,000 Asst: \$10,000 Aut: \$5,000		yes					
Missouri Columbia		Base = Based @ Mo. U. Adjusted by rank of non-clin. for prev. year Possible =	Prof: \$94,825 Asst: \$49,339 Aut: \$24,514	Internal	yes	Chair & faculty establish dept. general criteria	Clinical only	Competition the base	Fixed base can incr. no more than 10% index	No. Base + Possible to equal at least the base salary in effect when plan implemented
New Hampshire St. Louis University	July 1, 1996	Base Performance		External salary survey data	yes	Admin. service, clinical collections, funded grants, publications, & patient evaluations	Clinical only	no		
Dartmouth		PSGC = Program for Extended Committee of Compensation 250 basic points in KCHA (Under, Comp Reserve Aut)	Internal comp = 60% 17% above for all the 250-dept. ambulatory External comp = 60% guaranteed from external sources		yes		Ten track, basic sci. only, at Admin. Prof level or Prof level Participation voluntary	60% of prev. full comp from internal funds. Another 17% can be provided by data	No more than 10% decrease for current faculty.	No

	School	Effective Date	Components	Base Amount	Internal/External Benchmark for Base	Performance Based	How Performance Measured	Applies to Clin/Basic	Tenured Salary Defined	Range of Salary Ctg Up/Down	Did Plan Implement, Reduce Salary Of Current Faculty
New Mexico	U. of New Mexico	July 1, 1999	Base Supplement (B+S = contract sal) Incentive Bonus	Contract sal = no more than 85% base, and at least 15% supplement		yes		Clinical and basic	Guarantees the base	+ or - 15%	No
North Carolina	Duke	September 1, 1996		Dept. Chair sets total comp. & adjusts distribution of activities	Internal	yes		Clinical only	Prof:30,000 Asst:20,000		Not for faculty tenured before 8-31-96
	East Carolina	July 1, 1996	Base = av. UNC-CH SOM salary by rank Supplement Incentive Bonus	Prof: \$77,600 Asst: 55,700 Att.: 46,200	Internal	Yes	Chair and faculty member set annual personal productivity plan	Clinical only		Reduce=no more than 25%	
	UNC	Approved January 1996 Effective July, 1996	A: Base B: Negotiated C: Flexible D: Incentive Bonus	A: 3 yr av. UNC-CH sal. by rank (Anatomists) B: negotiated by chair A+B = 85% of negotiated salary C: 15% of A+B depending on dept. prod. D: pd. annual-annually dep. on dept. productivity.	Internal	yes	Dept. establishes performance based standards	Clinical only	Guarantees the base	Negotiated component (15%) can decrease	No
Oklahoma	U. of Oklahoma	July 1, 1996	Base Supplement Incentive Bonus	Base + Suppl = 60% of compensation Incentive = 40%	AAMC by specialty by rank	yes	Dept. establishes productivity standards	Clinical only	Guarantees the base		No
Oregon	Oregon	Effective July 1, 1997	X: Base Y: Negotiable & temp			yes		Clinical and basic	Fac. hired after July 1, 1997: Clinical: Prof-\$400K Asst-\$35K Basic: Prof-\$65K Asst-\$35K	Adjustments to tenure component made every 3 years	No. Tenure commitment to faculty hired before 7-1-97 remained in effect.
Pennsylvania	Penn State	Committee charged Feb 1997 Clin Depts. 97-99	Academic Comp Plan: Base Supplemental Incentive	Base = 70% of AAMC 50 th percentile (Table 9/10) Suppl = merit-based Incentive = special achievements	AAMC Tables 9/10	yes	Faculty Effort Report (teaching, gr. & contract, scholarly act., & COM admin)	Clinical only	Guarantees the base	Base + Suppl cannot exceed \$98,000 (80 th percentile AAMC 9/10)	No. Supplement can + or - no more than 15% of base plus supplement

[illegible]

Appendix B
Administrator Questionnaire

Faculty Compensation Plans: A Survey of Midwest Medical Schools Dissertation Research Project

In response to a 1997 AAMC survey on faculty appointments, tenure and career tracks, many AAMC institutions indicated they had modified the structure of faculty compensation for basic and/or clinical faculty. As a follow-up to the findings of that survey, I am requesting your assistance with my doctoral dissertation project. Completing this survey should take no more than 10 minutes. The following brief questions request information about:

- | | |
|---|------------------------------------|
| A. Why the plan was modified | D. Impacts of the revised plan |
| B. Process used to develop and implement the plan | E. Outcomes/acceptance of the plan |
| C. Strategies that worked and/or the stumbling blocks | |

A. Reasons for modifying the compensation plan:

1. To what extent did the following reasons lead to the development of a revised faculty compensation plan?

	No Impact	Moderate Impact	Major Impact	N/A
Faculty recruitment and retention:				
Encourage and reward high quality work.	1	2	3	4
Link each component of professional activity (teaching, research, service) to a component of salary	1	2	3	4
Encourage faculty to work in collaborative partnership toward common goals of the school/institution	1	2	3	4
Make faculty salaries competitive with comparable institutions	1	2	3	4
Attract superior faculty	1	2	3	4
Institutional financial stability:				
Protect the financial interests of all parties	1	2	3	4
Provide fair compensation to faculty while assuring that the school/college retains earnings sufficient to secure its financial viability	1	2	3	4
Provide the school/college with fiscal flexibility in a volatile environment	1	2	3	4
Align faculty compensation with departmental financial resources	1	2	3	4
Institutional mission (teaching, research, service):				
Recognize teaching responsibilities	1	2	3	4
Increased competition for research funding	1	2	3	4
Change in clinical income and payer mix	1	2	3	4
Explicitly define the relationship between tenure and compensation	1	2	3	4
Other - Please describe or specify: _____				

B. Process - Approach used to develop and implement the revised compensation plan

1. What organizational structure was developed to manage the process and make recommendations for revisions to the compensation plan?

- ☐ external consultants led the process and developed the draft plan
☐ faculty committee led the process with assistance from external consultants
☐ faculty committee led the process without assistance from external consultants
☐ other, please describe or specify: _____

2. Was this an "open" process, in that meetings to discuss the revised plan were public, and open to all faculty and staff? ☐ Yes ☐ No ☐ Somewhat ☐ Not Sure

3. To what extent were the college faculty involved in each of the following:

Faculty Involvement =	<u>None</u>	<u>Moderate</u>	<u>Extensive</u>
Studying the issue & researching plans at other medical schools	1	2	3
Drafting the revised compensation plan	1	2	3
Presenting the proposal to colleagues	1	2	3
Providing input when asked	1	2	3
Proposing solutions	1	2	3

4. Did the process include a clear communication plan to keep faculty informed as work progressed on the revised plan? ☐ Yes ☐ No

a) If yes, to what extent were the following avenues of communication used to obtain feedback and input from relevant constituents? Please check all that apply:

Usage =	<u>None</u>	<u>Moderate</u>	<u>Extensive</u>
E-mail/campus mail	1	2	3
Web site	1	2	3
Open forums	1	2	3
Departmental meetings	1	2	3
One-on-one meetings with faculty	1	2	3
Other. Please specify _____			

5. In what year was your compensation plan revised? _____

6. How long did it actually take to develop and implement? _____ months

7. If the process took longer than anticipated, what were the reasons?

Reason #1 _____

Reason #2 _____

Reason #3 _____

C. Strategies: Successful and Unsuccessful

1. In your opinion, what were the top two procedural strategies or actions (i.e. clear communication, etc.) that led to the successful development and/or implementation of the revised compensation plan?

Strategy #1 _____

Strategy #2 _____

2. In your opinion, what were the procedural strategies or actions that blocked or impeded the development and/or implementation of the revised compensation plan?

Strategy #1 _____

Strategy #2 _____

Strategy #3 _____

D. Impacts of the Revised Compensation Plan

The following questions are targeted at changes, adaptations and outcomes as a result of revising the compensation plan.

1. Changes to Tenure and its Guarantee

a. Does your school/college of medicine have a tenure system? ☐ Yes ☐ No

If your institution does not have a tenure system, please go to # 2 in this section (D).

b. Does tenure at your school carry with it some guarantee of salary? ☐ Yes ☐ No

c. Did the revised compensation plan more clearly define that portion of salary the institution guarantees to a tenured faculty member? ☐ Yes ☐ No

If yes, what was the change? _____

2. Changes to Individual Salaries

a. Was the revised plan tailored to address compensation of new faculty recruits only, thus "grandfathering" or holding harmless the salary of current faculty?

☐ Yes ☐ No ☐ Don't know

b. If current faculty were not "grandfathered," was the salary of any tenured faculty member decreased during the plan's first year as a result of the new base or benchmarked salaries? ☐ Yes ☐ No ☐ Don't know

c. Has the salary of any tenured faculty member been decreased in subsequent years? ☐ Yes ☐ No ☐ Don't know

d. What is the maximum percentage a faculty member's overall salary can be decreased in a given year? _____%

3. Productivity and Compensation

a. Does the revised compensation plan more directly link compensation to productivity? ☐ Yes ☐ No If no, please proceed to (e) below

b. If yes, to what extent does the revised compensation plan more directly link compensation to an individual's productivity in:

	Linked =	<u>None</u>	<u>Somewhat</u>	<u>Completely</u>
Teaching		1	2	3
Research		1	2	3
Clinical practice		1	2	3
University/College service		1	2	3

c. If yes, rate the extent to which the following were involved in development of productivity measures: Involvement =

	<u>None</u>	<u>Moderate</u>	<u>Extensive</u>
Consultants	1	2	3
Dean and administration	1	2	3
Department chairs	1	2	3
Faculty in the individual departments	1	2	3
Other, please specify: _____			

d. Have salaries been reduced when an individual faculty member did not meet his or her individual productivity measures? ☐ Yes ☐ No ☐ Don't know

e. To your knowledge, have any tenured faculty resigned or sought early retirement rather than face continued percentage reductions in their salary?
☐ Yes ☐ No ☐ Don't know

4. Changes in the Role of Departmental Chairs

a. Please rate the extent to which the revised plan impacted the role of the chairs relative to the following:

	<u>No Change</u>	<u>Reduced Flexibility and Subjectivity</u>	<u>Increased Flexibility and Subjectivity</u>	<u>Don't Know</u>
Compensation of faculty	1	2	3	4
Accountability for finances	1	2	3	4
Accountability for individual faculty development	1	2	3	4

b. The revised plan requires that department chairs: Please check all that apply

- ☐ meet with faculty for the annual setting of goals and expectations.
- ☐ be specific with faculty members regarding roles, measures of performance, tracking systems, and compensation arrangements
- ☐ abide by the productivity measures developed and adopted for their department
- ☐ document all specific faculty arrangements in writing
- ☐ provide constructive options for improving productivity where possible
- ☐ other, please specify _____

c. Were department chairs provided training in the development of goals and objectives, and methods to evaluate faculty performance? ☐ Yes ☐ No ☐ Don't know

d. To your knowledge, have chairs been willing to decrease a faculty member's salary when goals or productivity measures were not met?
☐ Yes ☐ No ☐ Don't know

5. Consequences of Change

Please reflect upon the consequences of changing the compensation plan, i.e. has it served as an incentive or a disincentive, when responding to the following:

a. In your opinion, please rate the impact of the productivity-based compensation plan on the faculty's time commitment and quality of engagement in the following:

	<u>No Change</u>	<u>Commitment Increased</u>	<u>Commitment Decreased</u>	<u>Don't Know</u>
1. Faculty time commitment to:				
Teaching	1	2	3	4
Patient care	1	2	3	4
Research	1	2	3	4
Service on committees	1	2	3	4
Willingness to mentor junior faculty	1	2	3	4
Willingness to assume administrative duties	1	2	3	4

	<u>No Change</u>	<u>Quality Increased</u>	<u>Quality Decreased</u>	<u>Don't Know</u>
2. Quality of engagement in:				
Teaching	1	2	3	4
Patient care	1	2	3	4
Research	1	2	3	4
Service on committees	1	2	3	4
Willingness to mentor junior faculty	1	2	3	4
Willingness to assume administrative duties	1	2	3	4

E. Outcomes and Goal Achievement

1. Based on your answers to the first question (A 1), please indicate which categories your institution is monitoring and which outcomes have been achieved:

	Formally Monitoring	Outcome Achieved
Faculty recruitment and retention:		
Encourage and reward high quality work	☐	☐
Link each component of professional activity (teaching, research, service) to a component of salary	☐	☐
Encourage faculty to work in collaborative partnership toward common goals of the school/institution	☐	☐
Make faculty salaries competitive with comparable institutions	☐	☐
Institutional financial stability:		
Protect the financial interests of all parties	☐	☐
Provide fair compensation to faculty while assuring that the school/college retains earnings sufficient to secure its financial viability	☐	☐
Provide the school/college with fiscal flexibility in a volatile environment	☐	☐
Align faculty compensation with departmental financial resources	☐	☐
Institutional mission (teaching, research, service):		
Recognize teaching responsibilities	☐	☐
Increased competition for research funding	☐	☐
Change in clinical income and payer mix	☐	☐
Explicitly define the relationship between tenure and compensation	☐	☐
Other - Please describe or specify: _____		

2. In your opinion, what has been the most positive and the most negative outcome(s) of the revised compensation plan?

Positive outcome(s) _____

Negative outcome(s) _____

3. In your opinion, to what extent have faculty been accepting of the changes resulting from the revised compensation plan?

Not At All	Somewhat Accepting	Mostly Accepting	Completely Accepting	Don't Know
1	2	3	4	5

4. Are there any issues related to the faculty compensation plan that were not covered in this survey which you think are important? _____

F. Respondent Information—

1. Please indicate your primary position at your institution:

- | | | | |
|--|-------|---|-----------------------------------|
| ☐ Department chair or Section Chief | ----- | ☐ Basic Science | ☐ Clinical |
| ☐ Director of Finance | | ☐ Associate Dean | |
| ☐ Assistant Dean | | ☐ Dean | |

2. Please indicate your institution among those being surveyed:

- | | |
|---|--|
| ☐ University of Arkansas | ☐ University of Oklahoma |
| ☐ Baylor University | ☐ University of Texas – Galveston |
| ☐ University of Colorado | ☐ University of Texas – Houston |
| ☐ University of Kansas | ☐ University of Texas – San Antonio |
| ☐ University of Missouri | ☐ Texas Tech University |
| ☐ University of Nebraska | ☐ Texas A&M University |
| ☐ University of New Mexico | |

THANK YOU VERY, VERY MUCH FOR YOUR PARTICIPATION.

Please return, BY FEBRUARY 15th, in the envelope provided, to:

Marcia Bennett, Associate Vice President for Health Sciences
The University of Oklahoma Health Sciences Center
Office of the Senior Vice President & Provost
1000 Stanton L. Young Blvd. Oklahoma City, OK 73117-1213
Telephone: (405) 271-2332
Fax: (405) 271-3151
E-mail: marcia-bennett@ouhsc.edu

Appendix C
Faculty Questionnaire

Survey – Faculty Compensation Plans Doctoral Dissertation Research

Your institution has indicated that it modified the structure of faculty compensation for basic and/or clinical faculty within the timeframe of academic years 1993-97. As part of my doctoral dissertation, I am requesting your assistance in documenting faculty participation, perception, and satisfaction with your current compensation program. Completion is estimated at 5 minutes.

1. Your primary assignment:

☐	Basic sciences faculty
☐	Clinical sciences faculty

2. Did you feel well informed of the process and intent of the compensation plan revision?

Yes	No
☐	☐

3. Did you or, to your knowledge, any colleagues have input into the plan's revision?

Yes	No
☐	☐

4. Does the revised compensation plan directly link compensation to productivity?

Yes	No
☐	☐

5. Based on your experience(s), has the compensation plan altered your time commitment to:

	Increased	Decreased	No Change
Teaching	☐	☐	☐
Patient Care	☐	☐	☐
Research	☐	☐	☐
Service on committees	☐	☐	☐
Willingness to mentor junior faculty	☐	☐	☐
Willingness to add administrative duties	☐	☐	☐

6. Do you feel the new compensation package has influenced your decision to remain at your institution?

Yes	No
☐	☐

7. Do you feel the current compensation plan is:

Yes	No
☐	☐
☐	☐
☐	☐

An improvement over the previous plan
 More fair than the previous plan
 Applied equitably

8. In your opinion, what has been the most positive and the most negative outcome(s) of the revised compensation plan?

Positive outcome(s) _____

 Negative outcome(s) _____

9. Please indicate your institution among those being surveyed:

☐ University of Arkansas	☐ University of Missouri	☐ University of Texas– Galveston
☐ Baylor University	☐ University of Nebraska	☐ University of Texas– Houston
☐ University of Colorado	☐ Univ. of New Mexico	☐ University of Texas–San Antonio
☐ University of Kansas	☐ Univ. of Oklahoma	☐ Texas Tech University
		☐ Texas A&M University

PLEASE SEE OTHER SIDE FOR SUBMISSION

Thank you so much for your willingness to participate in this study.

Please return, **BY FEBRUARY 15th**, in the postage-paid envelope provided, to:

***Marcia Bennett, M.B.A.
Associate Vice President for Health Sciences
University of Oklahoma Health Sciences Center
Office of the Senior Vice President & Provost
P.O. Box 26901
Oklahoma City, Oklahoma 73190
Phone: (405) 271-2332
Fax: (405) 271-3151
E-mail: marcia-bennett@ouhsc.edu***

Appendix D
Participation Materials

Appendix D1
Invitation to Participate



The University of Oklahoma
Health Sciences Center

MARCIA BENNETT
ASSOCIATE VICE PRESIDENT FOR HEALTH SCIENCES

Dear Medical School Faculty Member

I am requesting your help.

**I have flown to UT- Houston to
distribute my doctoral surveys
about medical school faculty
compensation plans.**

**Would you please assist me by
completing the survey (5 min.)
and returning it in the stamped
envelope? I know your med school
is in the process of revising its 1996
plan. Please answer the survey
based on the 1996 plan.**

Thank you in advance for your help!!

Marcia Bennett

Appendix D2
Informed Consent Form

Informed Consent to Participate in a Doctoral Research Study
being conducted under the auspices of
The University of Oklahoma-Norman Campus

Title: Alterations to Faculty Compensation Structures at Midwest Medical Schools

Researcher & Sponsor: Marcia Bennett, M.B.A.
Associate Vice President for Health Sciences
Graduate student in Educational Leadership & Policy
College of Education
The University of Oklahoma-Norman Campus
e-mail: marcia-bennett@ouhsc.edu
Phone: (405) 271-2332

Office of Research Administration
The University of Oklahoma-Norman Campus
Phone: (405) 325-4757

This document is an individual's consent to participate in this research project.

Purpose: The purpose of this study is to determine what changes in medical school faculty compensation structures have occurred at 13 Midwest medical schools since 1997, and what impact, if any, those changes have had on the portion of faculty salary guaranteed by tenure. Completion of the survey should take approximately 10 minutes.

**Risks/
Benefits** The research project has no risks or benefits to participants.
Participation is completely voluntary. Refusal to participate will involve no penalty, and the participant may discontinue participation at any time without penalty.

Confidentiality: All participant information will be treated as confidential by the researcher. Publications which arise from this study will only report group and summary data, and no participant will be personally identified.

Questions: Any questions you may have regarding your rights as a research participant can be directed to the Office of Research Administration (405) 325-4757 or e-mail irb@ou.edu.

**Participant
Approval:** I have read and understand the Informed Consent and conditions of this study. I hereby acknowledge the above and give my voluntary consent to participate in this study. I understand I may withdraw at any time without penalty. I acknowledge that I am 18 years of age or older. Submission of the completed survey is acknowledgement of my consent.

Appendix E
Semi-Structured Interview Guide

COLLEGE: _____

GENERAL INFORMATION GUIDE

Contact Person _____ **Title** _____

Phone _____ **E-mail** _____

I. Academic Medical Center/College of Medicine Setting:

A. General Description of Academic Medical Center Environment

1. Mission
2. Operations, budget and programs
3. Public or private institution

B. Organization of the College of Medicine

1. Departmental Structure
2. Faculty - number and composition
3. Medical student education
4. Graduate medical education
5. Research
6. Health care services
7. Compensation policies
8. Tenure policies

C. College of Medicine Financial Structure

1. Budget
2. Revenues & expenditures
3. Financial/business plan
4. Faculty practice organization
5. Affiliation with teaching hospital(s)
6. Ownership of clinical facilities
7. Academic-clinical enterprise
8. Fiscal constraints & initiatives to adapt

D. History of College of Medicine Budget and Compensation Structure Prior to New Compensation Plan

E. Other Significant Factors Affecting the College of Medicine

1. External clinical factors - (managed care penetration; Medicare/Medicaid changes; are there other academic medical centers in the area)
2. Political factors

II Initiation/Expectations/Objectives/History

A. Significant Events which Led to a Revision in the Faculty Compensation Plan

1. Initiation, intervening events, changes in process
2. Type
3. Time period
4. Participants
5. Descriptive Comments

B. General Factors Which Contributed to a Revision of the College of Medicine Faculty Compensation Plan

1. Initiation, intervening events, changes in process
2. Uncontrollable external motivating forces - financial stringency, change in Medicare/Medicaid reimbursement, etc.
3. Internal motivating factors - faculty policy/tenure issues, revision of compensation plan to alleviate financial constraints of tenure?
4. Sources of initiation/intervening influences - interests of particular individuals, mandate from University Trustees, etc.
5. Early Evolution
6. Influence of other medical schools taking similar action with compensation

C. Formally Stated Objectives, Targets, or Expectations

1. By initiators, by department chairmen, by faculty

III Description of Process and Methodology Used to Develop Faculty Compensation Plan

A. General Description of the Approach to Development of Revised Compensation Plan

1. Formal authorization - which office/administrator initiated the process and why? Did that affect faculty buy-in?
2. Organization units involved - degree of involvement at department, college, AMC level; formal organization of faculty in terms of their involvement, how were they integrated into the process? Was it top down style or was there faculty participation?
3. Elements of process
4. Time frame

5. Organizational support
6. Flexibility

IV. Organization/Participants/Decision-Making/ Interaction

A. Formal Groups Involved

1. Purpose/Charge to the group
2. Permanence of group (ad hoc, task force, standing committee, etc.)
3. Membership composition
4. Membership selection
5. Date established
6. Frequency of meeting
7. Support staff
8. Support budget
9. Role in activity (functional)
10. Role in decision making (functional)

B. Individuals Involved

1. Name
2. Position in the College of Medicine
3. Position/role in the committee - leader, advocate, developer, etc.
4. Expertise
5. Role in decision making
6. Role of university-level officials/administrators; role of university trustees.

C. Interactions With Other Planning and Decision Making Groups/Individuals

1. Name of other groups/individuals
2. Collaborative nature of intergroup contacts
3. Substance of Interaction
4. Who had final sign-off or veto power on the plan—at the college or university level.

IV. Changes and Adaptations In and Outcome Of Revised Faculty Compensation Plan

A. Changes in:

1. Objectives
2. Base salaries and other components of salary
3. Job tasks
4. Policies in areas such as goal setting, review of faculty. If so, who took on those tasks.
5. Linkage of salary with performance planning, goal setting, performance review

6. Salary structure of current faculty versus new appointees

B. Perceived Outcomes

- 1. Acceptance/satisfaction with process/approach**
- 2. Attitudes (about confidence in decisions, about quality of the compensation plan, etc.)**
- 3. Worthwhileness- perceptions of participants, commitment to completion of several budget cycles using compensation plan components, commitment to determining individual faculty compensation with this approach, etc.**
- 4. Congruence with expectations - perceived outcomes and original expectations**

INTERVIEW GUIDE

College: _____

A. INTERVIEWEE BACKGROUND AND INVOLVEMENT

1. Name _____
2. Current Position(s) _____
3. How would you describe your professional role over the last several years, and in particular, as it relates to the financial management of the College of Medicine.

4. How would you describe your involvement with or knowledge of:
 - a. College of Medicine overall financial status
 - b. College of Medicine budget and budget process
 - c. Initiating conditions which led to the development of a revised faculty compensation plan?
 - d. The decision to modify the compensation plan and selection of a model?
 - e. The changes other medical schools have made to their compensation plans?
 - f. _____
 - g. _____

5. I would like to begin with.....(select pertinent sections below) and conclude with a discussion of impacts:

Interview Schedule Sections to Use:

- a. Initiation/Expectations/Objectives/History _____
- b. Description of Process and Methodology _____
- c. Organization/Participants/Decision-Making/
Interaction _____
- d. Changes/Adaptations/Outcomes _____

B. INITIATION/EXPECTATIONS/OBJECTIVES/HISTORY

1. Please reminisce about your experience with the development of the revised faculty compensation plan.

Probe: What was the evolution of the College of Medicine financial situation which led to the revision of the plan?

Probe: Who started the move and why?

Probe: What problems occurred along the way?

Probe: What were the roadblocks?

What seemed to work best along the way? Did this surprise you?

Were you able to learn from the experiences of colleagues at other colleges of medicine who had gone through similar processes?

2. What were the most important pressures, conditions, and significant events which led to the development of a new faculty compensation plan?

Probe: Pressures/Conditions

Major changes in health care/health care marketplace/payers

Decrease in clinical income

Need for incentives to encourage team/partnership approach

Surplus of specialists

Surplus of faculty to whom the medical school had a large or significant financial commitment

Probe: Events

Change in ownership of the teaching hospital(s)

Change in structure of the faculty practice

Did the type of faculty practice plan impact the type of compensation plan?

Probe: Where did the impetus come from?

Academic Medical Center CEO?

Dean of the College of Medicine?

Board of Trustees?

Probe: How strong would you say the original commitment was to move to a revised compensation plan?

Yours?

Department Chairs?

College of Medicine Dean?

Academic Medical Center CEO?

3. How were the decisions made which led to the revision of the faculty compensation plan?

Probe: What were the key interventions by individuals or groups which resulted in the modification of the compensation plan?

Probe: Who were the major proponents?
Who were the critics?

Probe: Why was this particular faculty compensation model chosen over others?

4. What expectations did people have for the new compensation plan at the time it was being developed?

Probe: What expectations did you have?
For your personal income
For the college financial status

Probe: What expectations did others have?
For their personal income
For the college financial status

Probe: What were the targets of change?

Probe: How much of a change did you expect to see?

Probe: What units within the college of medicine were to participate in the plan?
Clinical departments only
Basic Science departments only
Both

Probe: Was it a good time for the college to revise its compensation plan?

Probe: How were the decisions communicated to and received by everyone?

C. DESCRIPTION OF PROCESS AND METHODOLOGY

- 1. Please describe the general approach to developing the revised compensation plan.**

Probe: What kind of formal authorization was set forth and by whom?

Probe: What were the primary issues to be addressed through the revision of the faculty compensation plan?

Probe: What was the stated timeline for the entire revision process?

D. ORGANIZATION/PARTICIPANTS/DECISION-MAKING/INTERACTION

- 1. What type of organizational structure was developed to manage the process and make recommendations for revision to the faculty compensation plan?**

Probe: What was the composition of the group - task force, committee, etc.

Probe: How were members selected?

Probe: How often did the group meet?

Probe: How much flexibility did this group have in determining the final components of the revised compensation plan?

- 2. What mechanisms were established to obtain feedback and input from relevant constituents?**

Probe: What were the avenues for communication between this group and the dean, the department chairs, and the faculty on the principles and objectives of the plan?

Probe: What opportunity was availed constituents to provide feedback — Open faculty forums? Web-site question and answer pages?

Probe: To what extent was the plan developed collectively, using multiple iterations and criticisms of the plan as it developed?

Probe: What was the approval process for final approval of the plan?

E. ADAPTATIONS TO/OUTCOMES OF REVISED FACULTY COMPENSATION PLAN

1. Tenure changes

Probe: Historically, how closely has the institution defined the relationship between tenure and compensation for college of medicine faculty?

Probe: How is tenure defined at this institution?—as a continuing appointment only? Does it also carry a financial guarantee?

Probe: Does the institution have a written policy that defines what portion of an individual's salary is related to ("guaranteed by") tenure?

Probe: If there is a financial guarantee associated with tenure, what is the nature of that guarantee?

Total salary?

That portion of salary from university/state funds only?

A guaranteed base only? If so, equivalent to what?

Probe: If tenure guarantees a base salary, or fixed dollar amount, how was that base/fixed amount determined?

Tied to an internal standard/benchmark? (Average of basic science faculty)

Tied to an external standard/benchmark? (AAMC salary tables)

Probe: What, if any, changes were made to the college of medicine tenure policies as a result of revising the compensation plan?

Did the relationship between tenure and compensation change with the new plan? Did the relationship become more defined?

2. Were the salaries of current faculty changed as a result of the new base or benchmarks?

Probe: If so, when—at the time of implementation? subsequently?

Probe: Was the plan developed to address compensation of new faculty recruits only, thus "grandfathering" the current faculty.

3. How closely does the revised compensation plan establish a link between compensation and productivity?

Probe: Are there established performance criteria? What role did the faculty play in the development of those criteria?

Probe: How closely linked is an individual's salary to the success of the section/

department/college?

Probe: How is this different from the way faculty were compensated previously?

- 4. How closely does the plan establish a link between faculty compensation and the annual setting of goals and expectations as determined by faculty and their department chairman?**

Probe: How has this process impacted the responsibilities of the chairmen?

Probe: In your opinion, what percentage of department chairmen are actually conducting an annual goal setting session with each faculty member?

Probe: Does the plan permit salary reductions, and, if so, within what limits?

Probe: Have chairmen been willing to decrease a faculty member's salary when goals or productivity measures were not met?

Probe: What change, if any, has occurred in faculty workload or faculty assignments since more closely linking compensation with productivity?

- 5. In your opinion, how successful has the revised compensation plan been in achieving the following stated objectives?**

INSERT SPECIFIC OBJECTIVES OF THE RESPECTIVE INSTITUTIONAL COMPENSATION PLAN

i.e. "to encourage and reward high quality work; to make the school of medicine an attractive place to work for the finest clinicians, educators, and researchers", etc.

- 6. In your opinion, what has been the most positive outcome of the new plan? The most negative outcome?**
- 7. In your opinion, what has been the most significant adaptation that has occurred as a result of implementing a revised faculty compensation plan?**
- 8. If you could begin the process of developing the faculty compensation plan over again, what would you recommend be done differently?**

CONCLUDING ITEM:

- 1. Are there any other issues related to the faculty compensation plan we have not covered which you think are important?**

Appendix F
Letters of Permission



The University of Oklahoma

OFFICE OF RESEARCH ADMINISTRATION

RECEIVED

NOV 27 2000

November 21, 2000

Ms. Marcia Bennett
Office of the Provost - HSC
Library 221
CAMPUS MAIL

ASSOCIATE VICE PRESIDENT
FOR HEALTH SCIENCES

Dear Ms. Bennett:

Your research application, "Alterations of Faculty Compensation Structures at Midwest Medical Schools," has been reviewed according to the policies of the Institutional Review Board chaired by Dr. E. Laurette Taylor and found to be exempt from the requirements for full board review. Your project is approved under the regulations of the University of Oklahoma - Norman Campus Policies and Procedures for the Protection of Human Subjects in Research Activities.

Should you wish to deviate from the described protocol, you must notify me and obtain prior approval from the Board for the changes. If the research is to extend beyond 12 months, you must contact this office, in writing, noting any changes or revisions in the protocol and/or informed consent form, and request an extension of this ruling.

If you have any questions, please contact me.

Sincerely yours,

Susan Wyatt Sedwick, Ph.D.
Administrative Officer
Institutional Review Board

SWS:pw
FY01-130

cc: Dr. E. Laurette Taylor, Chair, Institutional Review Board
Dr. Jerome Weber, Educational Leadership & Policy Studies