Order Number 9208314

Alternative compensation method: A theoretical reward system model incorporating adult-life and work/career stages of school administrators

Snyder, Richard Harry, Ed.D.

The University of North Carolina at Greensboro, 1991

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

ALTERNATIVE COMPENSATION METHOD: A THEORETICAL REWARD SYSTEM MODEL INCORPORATING ADULT-LIFE AND WORK/CAREER STAGES OF SCHOOL ADMINISTRATORS

by

Richard H. Snyder

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1991

Approved by

Dissertation Advisor

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the The University of North Carolina at Greensboro.

Dissertation Advisor C. M. Achilles

Committee Members

7/23/91
Date of Acceptance of Committee

7/23/91
Date of Final Oral Examination

SNYDER, RICHARD HARRY, Ed. D. Alternative Compensation Method: A Theoretical Reward System Model Incorporating Adult-Life and Work/Career Stages of School Administrators. (1991) Directed by Dr. Charles M. Achilles. 202 pp.

The purpose of this research study was to design a theoretical compensation system for school administrators incorporating concepts of career/work development and adult-life stages. Some of the questions guiding the study were: (1) What are the similarities, etc. of various theories supporting the development of an adult-life stage compensation model?; (2) What are the probable impacts on a school district's operating costs of using a compensation system based on career paths and adult-life principles?; and (3) What are the financial differences between the hypothetical and the traditional compensation systems for a real school district?

Some major findings were: (1) substantial research and theory support a reward system based on adult-life stages and/or work and career phases; (2) an adult-life stage compensation plan developed and paid annually over an individual's lifetime can benefit the individual and the employing organization; and (3) adult-life stage compensation system provides remuneration to employees during their most productive periods at salary levels that recognize their contributions to the school.

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to Dr. Charles M. Achilles and the other members of my committee: Dr. Dale Brubaker, Dr. Nur Gryskiewicz, and Dr. Harold Snyder. A very special thank you to Dr. Charles "Chuck" Achilles for his patience, constant guidance and support during my academic journey.

I am very grateful to Dr. Debbie Craven, my friend and wife, who counseled, encouraged, motivated, and provided other avenues of support to me. Without her love and belief in me, the pursuit of this honor may not have been completed.

Gratitude is extended to Tersea Thompson for her clerical assistance and Astrid Hendricks for her computer programming assistance. A special "thank you" to Peg Achilles who has always shared her husband and home with me for the past 15 years (especially the past 18 months).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

A Nation at Risk (1983) suggested the need for revitalizing education in the United States. The National Commission on Excellence in Education (NCEE) reported in their findings to the leaders of government, business, industry, education and the general public many aspects of education that needed to be reformed.

One problem area cited was the quality and quantity of the teaching force (this included administrators) needed to bring education into the twenty-first century. Educational reforms emphasized restructuring of the school systems at the local level. Some of the suggested educational reforms included programs of shared governance, site-based decision-making and management, small class sizes (elementary programs) and reward systems that would attract and retain the quality and quantity of personnel needed to lead the educational reform program.

Realizing the seriousness of the issues facing education, legislators and other politicans began reforming the schools in earnest in the mid-1980s with mandated legislation directed at all phases of education. School administrators were charged with carrying out the reform. The one critical element strangely overlooked or not

seriously considered was the quality and quantity of the human resources needed to research, plan, implement and evaluate the revitalized programs. Most reform programs were top-down, mandated or imposed on the local school district with more concern for political visibility than educational excellence.

RATIONALE

In identifying the need for educational reform, the commissions uncovered a parallel need for better qualified personnel both in the classroom and at the administrative staff level. Researchers projected needs for staffing, especially in the classroom, and estimated shortages that would occur as early as 1987 with an anticipated shortfall of 18,000 teachers and by 1991 the number would reach 100,000 teachers per year (Goldstein, 1986).

Shanker (1988) pointed out that during the next five to seven years the projections for turnover in the teaching profession would reach nearly 50 percent of the 2.2 million teachers while requiring on the average at least 200,000 new teachers each year. California alone, he pointed out, according to state education superintendent Bill Honig, would have to recruit at least 100,000 new teachers in the next five years.

Projections by Goldstein (1986) and Shanker (1988) will require school district leaders and legislators to

understand that education must attract and retain 25 percent of all college graduates during this period of time. In 1989 only six percent of the college graduates were choosing education as a career, and as of 1983 only four percent of all college graduates indicated teaching as a career (Shanker, 1988). With the advent of major educational reforms that began in the early 1980s and bolstered by the publication of A Nation at Risk and other reports, the potential labor supply has only increased by two percent in the past decade (Cetron and Gayle, 1990).

One concern in attracting and retaining individuals to a career field is the available reward system. One element of the reward system is the compensation program being offered to the individual. The compensation system should meet the extrinsic and intrinsic needs of the individual over his or her adult-life stages and work career.

Monk and Jacobson (1985) argued that compensation should be a "frontloaded" distribution in which beginning or novice teachers were awarded larger increments than established teachers. Their argument was built on the fact that existing systems were based generally on low intrinsic and extrinsic rewards for beginning teachers. Their hypothesis centered on new teachers who, by definition, have little experience with intrinsic rewards of teaching. One source of intrinsic rewards for a teacher is watching the successful growth of students academically and emotionally

through their school careers. This reward can only be experienced by the veteran teacher or administrator. Therefore, mostly extrinsic rewards are available to motivate and influence behavior of the new teachers.

Shanker (1988) noted that the reform movement has begun to bring about significant and long-delayed improvements in teachers' salaries. However, the new increased beginning salary levels alone will not offer sufficient incentive to attract and retain staff that schools will need in the future.

The wide range of reform programs being implemented under restructuring has affected programs which require educational leaders to have superior qualifications that assure the success of the reform movement. The predicted shortages in the teaching ranks will assuredly lead to shortages in the individuals available for leadership positions unless there are changes in the current ways of rewarding persons who lead in education. Attrition, retirement and alternative opportunities add to the shortages of qualified school administrators.

A research study conducted in the State of Maine (Johnson, 1987) found that 24 percent of the secondary principals and 22 percent of the elementary principals will retire before 1993. Twenty percent of this group will retire before 1991. Twenty-five percent of the group retiring before 1991 will be women. The study also reported

that 20 percent of the secondary principals and 11 percent of the elementary principals were willing to leave education. Thirty percent of the elementary principals indicated a willingness to return to the classroom and forego their leadership positions.

If Johnson's (1987) and Shanker's (1988) statistics are any indication of a national pattern, then America's school reform will face a critical shortage of qualified leaders at a time when the need for qualified administrators is critical because of the leadership role they play as school managers/leaders in the reform movement. Shortages of teachers will soon lead to a smaller and less qualified talent pool of potential administrators available in the future. School district leaders must reconsider reward systems that do not help to retain or motivate the existing work force or attract potentially qualified applicants from other sources. The reward system in education must meet both the extrinsic and intrinsic needs of the work force to assure that education has the necessary talent pool.

There are many current compensation practices education throughout the United States. The foundation of current compensation system used by many school districts contains three basic assumptions: (1) the labor force pool (availability of) consists primarily of teachers in the school district; (2) most compensation plans do not allow for mobility or portability of the reward-system benefits

outside of the state-mandated system and/or in some cases the school district itself; (3) the compensation plan is indexed by academic achievement (degrees earned), certifications attained and/or graduate hours completed. Additional preparation levels move the individual up in the compensation plan index along with step-ladder compensation schedules based on the number of years of service in the pay-grade level (Sedlak and Schlossman, 1986).

STATEMENT OF THE PROBLEM(S)

Based on projections of school labor needs, school district leaders and state policy-makers must develop reward systems that meet the needs of school administrators. One way to do this is to consider alternatives to the current lock-step or index-salary formulas by relating compensation to administrators' career paths and adult-life stages.

Education is labor intensive; most of the budget of a school district supports personnel-related costs. Existing reward systems, especially compensation, have their roots in the designs and methodologies developed and implemented before World War II (Sedlak and Schlossman, 1986). Other rewards (insurance coverage, vacation, sick leave, professional development time, etc.) were provided grudgingly or through protracted negotiations by unions. The reward systems used today in education can only be classified as longevity-based, degree-oriented and

restrictive; they provide the users with almost no choice(s) or option(s) to meet their needs during and through their career paths or adult-life stages.

With the restructuring of education currently in progress, educational leaders should consider the following problem areas: (1) it is time to review the old compensation system; (2) for the reasons described briefly above - education needs to evaluate the effectiveness of the existing system to recruit, retain, and motivate personnel; and (3) new research and assumptions (i.e., life-stages, work and career stages, motivation practices) may contribute positively to new compensation systems.

PURPOSE

The purpose of this study was to design a theoretical compensation system for school administrators that incorporates principles based on the concepts of career/work development and adult-life stages while testing the model against a school district's compensation system.

OBJECTIVES

In this study the researcher seeks to develop one or more compensation models that (1) meet assumptions other than the traditional ones, (2) are within reasonable constraints within frameworks available, and (3) allow the researcher to forecast the financial impact on a school

district's operating budget. The model(s) will be tested by comparing them to a current plan using the same school system data base.

SIGNIFICANCE

Individuals face certain costs when selecting education as their chosen profession. When the costs of selecting education and preparing for a teaching or administrative career become prohibitive, one option persons can elect is to pursue alternate lines of work where they will be adequately compensated.

Monk (1989) stated:

> unless teacher salaries change dramatically and begin to address these differential costs across subject matter specialization, further emphasis on subject matter specialization runs the risks of exacerbating an already serious problem regarding the retention of those trained to teach. (p. 43)

Shanker (1988) encouraged school district leaders to increase teachers' salaries to levels competitive with other professions because education no longer has a "leg up" in the recruitment process. For the first time, educators must seek resources in the marketplace in a head-to-head competition with other occupations. Previously education had a big advantage in the recruitment of women and minorities, but these groups now have other employment opportunities.

The National Commission on Excellence in Educational Administration (1987) in Leaders for America's Schools proposed that public schools have programs to recruit qualified administrators from among their teachers. The Commission stated:

> as the teaching force declines in numbers as well as quality, and more highly motivated teachers opt for career-ladder advancements rather than administrative posts, school districts will need to make vigorous efforts to recruit qualified candidates for administration. (p. 13)

Johnson (1987) pointed out that once an administrator attains his or her position, the reward by itself does not keep and motivate the administrator's performance. Many rewards both extrinsic and intrinsic to the job provide the stimulus to the individual. The willingness of administrators to change careers (leave the education field completely) is particularly significant for a small state, such as Maine where Johnson conducted the study.

If the reward system can not be designed to meet the career path and adult-life stage needs of teachers and administrators, then the prospects for recruiting and retaining qualified and competent personnel in education may be increased. With only six percent of the college graduates opting for careers in education (Cetron and Gayle,1990), the supply side of the equation does not come close to meeting the demand side of the equation. In

economic terms, when the demand is greater than supply, the price will increase for the resources (labor) to meet the need of the individual (school).

One component of the reward system is compensation. Since 1983 when A Nation at Risk was published, the issue of compensation has become pivotal to the success of the educational reform movement. Dollars have been spent on compensation levels in varying ways and amounts. Today compensation levels in education still are not competitive in the marketplace with other career opportunities requiring similar preparation nor do they meet the needs of individuals once they enter the profession.

It is doubtful that education leaders (school district boards, legislators, county commissioners, taxpayers, etc.) will provide the necessary funding for education to be competitive solely on a monetary basis. If this is true, then we must develop a methodology(ies) that will increase the extrinsic and intrinsic value of the compensation received by individuals in the performance of their job duties.

RESEARCH QUESTIONS

The approach to the problem of this study involved: (1) a literature review of life-stage and career-work research as a basis for the adult-life stage model, (2) development and testing of the model, and (3) some implications of the

resulting system. Questions guiding this research were derived from the general problem. Data for Question One are in Chapter II. The answer for Question One provides basis for the theoretic compensation curves used to answer Questions Two through Five.

1. What are the similarities, etc. of various theories supporting the development of an adult-life stage model (this is, how do various theories "come together" to provide the theoretic/ conceptual basis for which to build the alternative curve(s)?
2. What are the probable impacts on a school district's operating costs if a district uses a compensation system based on career paths and adult-life stage principles in comparison to a district that uses the traditional compensation system based on longevity, step increases and degrees earned?
3. How would a compensation system look that is designed to parallel career path and adult-life stages of school administrators?
4. What are the financial differences between the proposed compensation system and the traditional compensation system of a school district? For example, are the total dollars expended over the employment cycle of an

administrator different because of the differing compensation curves? What is the difference?

5. What, theoretically, is the potential of the career path/adult-life stage compensation model to impact recruitment, retention and performance (productivity) of administrators over the work career path?

DEFINITIONS

1. Adult-Life Stages - refers to intervals of time in an individual's life from the age of 16 through death when the individual comes to terms with polarities, (e.g., attachment or separateness, destruction or creation, masculine or feminine, and young or old) or choices in self-image that face the individual (Levinson et al., 1978).
2. Career Path - refers to the direction of an individual's career as indicated by career milestones (e.g., entry level position to a supervisory position to an executive position) [Super, 1963].
3. Compensation - refers only to the salary and/or wages (direct remuneration) received by an individual for the services he or she renders (Shafritz, 1980).

4. Extrinsic Rewards - refers to monetary-based rewards/incentives that are a primary source/ reason for the work performance levels demonstrated (Shafritz, 1980).
5. Intrinsic Rewards - refers to those non-monetary rewards contained in the job itself such as personal satisfaction, a sense of achievement, belonging, ownership, and the prestige received from the work completed (Shafritz, 1980).
6. Reward System - refers to a generic and inclusive term that covers all types of rewards whether they have monetary or non-monetary value to the individual (Shafritz,1980).
7. Traditional Compensation System - refers to the existing methodology of direct remuneration used by most school systems to compensate teachers and administrators for their services. For example, the system generally consists of step-salary increases based on the individual's certification and the number of years of service rendered within the school district (Sedlak and Schlossman, 1986).

STATEMENT OF DESIGN

Research Approach

This is a theoretic study to develop and test a new model. The study builds upon current practice and considers recent findings on new reward systems that include compensation practices and other elements of a reward system. The researcher developed and tested a model to project the compensation level paid to an individual over his or her work career and compared it to the traditional methods of remuneration currently used in one school district.

The theoretic approach chosen to design and represent a compensation model based on career pathing and adult-life stages is derived from research in these fields (Levinson et al., 1978; Sheehy, 1974; and Wrightsman, 1988).
The theoretical model projects the financial impact of a compensation system being used to pay school administrators during their work careers. The administrator's compensation level is projected using the school's existing compensation plan. Comparisons are then made between/among the individual's career path and adult-life stages, the current compensation system, and the financial impact on the district.

The theoretical model emphasizes the impact that extrinsic rewards have during the early years in the career

path of administrators and the flexibility to change career goals in later adult-life stages to meet the intrinsic needs of the individuals. Certain assumptions are made about compensation increases (annual adjustments to the compensation plan), career path decisions made during the individual's career as they relate to work functions, and the career path followed under the traditional/existing compensation system.

The theoretical compensation model design projected compensation levels at various points along the adult-life stage curve and the traditional compensation curve used by a school district. Graphics will be used to project and display results of the data base.

Each compensation curve starts with the same base salary figure and has an annual percentage increase each year to reflect changes in the plan. The adult-life curve is designed to generate salary levels higher than those of the traditional curve in the early work career of the administrators. This reflects the emphasis on extrinsic rewards and recognizes outstanding performance levels on the job. These factors taper off once the intrinsic reward system comes into play in later adult-life stages.

The assumptions used in the design of a traditional compensation curve are: (1) the base year salary level will be established in an existing compensation program, (2) a

fixed percentage each year will be added to the current base salary based on the salary levels of an existing compensation plan or fixed percentage established by the scenario or assumption being utilized at that time, and (3) a total compensation expenditure level will be calculated at the end of the curve.

Assumptions used in the design of the career paths and adult-life stage compensation curve are: (1) uses the same base year compensation level as the traditional method is used to establish the base year compensation level for the adult-life curve, (2) establishes a compensation level difference above the traditional curve, (3) decreases the compensation level along the adult-life stage curve as an individual moves from an extrinsic to a intrinsic reward system (e.g., having the desire for more personal time, reduction in obligations, such as mortgages, etc.) to meet their adult-life and career path needs, and (4) calculates a total compensation expenditure level.

Other specific assumptions concerning the development of the theoretical traditional and adult-life stage scenarios appear in Chapters III and IV. These assumptions are incorporated in the tables used to answer the research questions of the study. The adult-life stage model incorporates such principles as job enrichment theory, pay-for-performance or productivity issues along with the basic principles of extrinsic and intrinsic reward theories.

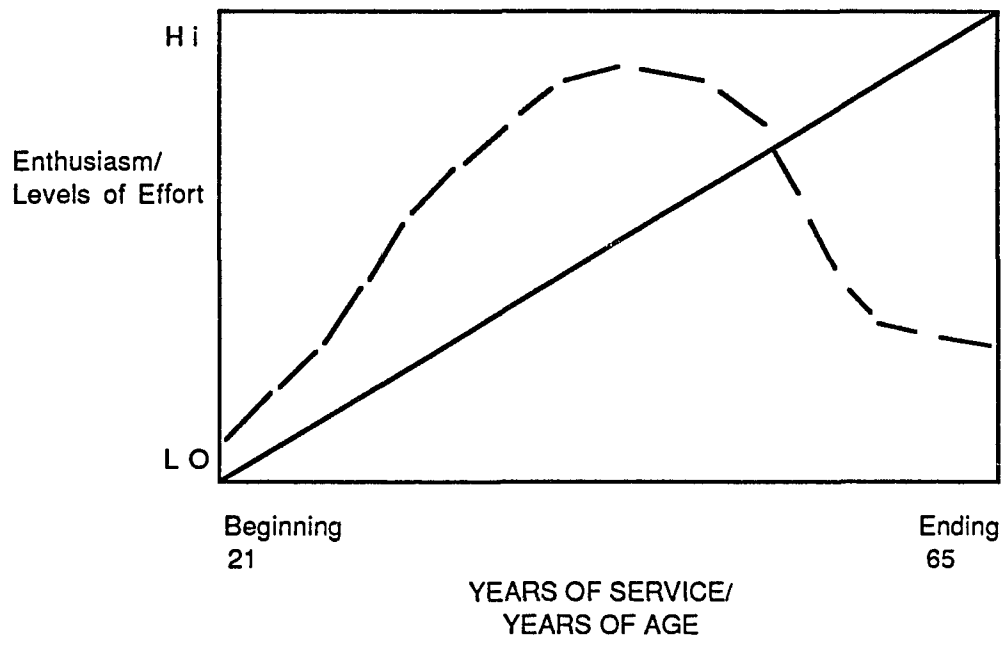
Research Methodology

The methodology used in this research study consists of a five-step approach to develop a theoretical compensation model. The steps include (1) a literature review of the compensation practices in education, (2) identification and discussion of the new forces in the field affecting considerations in compensation design in education, such as, frontloading and backloading pay schedules, career ladders, and adult-life stage implications, (3) a discussion of theoretic models and their rationale, (4) the development of a simulation (e.g., one or more theoretic models) to project comparisons between existing approaches, and (5) some discussion of the potential of alternate compensation plans to influence recruitment and retention of the existing labor force.

Figure 1 depicts hypothetical compensation curves based on the relationships between enthusiasm/levels of effort and age/years of service. Education's traditional compensation curve assumes that individuals' enthusiasm/levels of effort continue to increase over their career work stages. This assumption leads to increased compensation levels annually. The adult-life stages compensation curve depicts higher levels of enthusiasm/levels of effort in the earlier career work stages. As the age and years of service increase the individual's enthusiasm/levels of effort will increase and then peak around the age of 40-45. After plateauing for

FIGURE 1

Projected View of Traditional vs. Adult-Life Stage Compensation Curves Based on the Relationship Between Enthusiasm/Levels of Effort and Age/Years of Service



KEY: ------Adult life stage compensation curve
_____Traditional compensation curve

some time, a slow descent in enthusiasm/levels of effort may occur until retirement. The adult-life stage curve suggests that school district compensation practices should be tied to the levels of enthusiasm/levels of effort demonstrated on the job as reflected in adult-life and career-work research.

The review of the literature describes compensation in education and especially current practices used by school district leaders in the prior decade. Included in the research of reward systems are other monetary/non-monetary benefits provided by the school districts.

The review and analysis of the literature also cover the issues affecting or contributing to the shortages in the labor supply. Topics considered are career pathing, frontloading versus backloading compensation systems, adult-life stages, retirement patterns in the current labor force, and other compensation-related issues.

Various theoretic models were analyzed to assess the impact and value in the current scheme of compensation practices and its potential value to the proposed model being researched. The suggested theoretic models provide a basis for a series of projections that make possible comparisons of the theoretic pay against the existing compensation system of a school district.

Data Source and Sample

In order to study the economic/financial impact of the compensation system model on a school district's operating

budget, a population of certificated administrative personnel who hold positions such as assistant principal, principal, and assistant superintendent in one school district was selected. The population was employed at a school district in one state with an organizational structure and personnel policies and practices similar to other school districts found in the state and nation. The job duties and responsibilities being performed correspond with those used by the Educational Research Service in their National Survey of Salaries and Wages in Public Schools compensation survey. To allow for comparison, the study addressed positional responsibility and not specifically the issues of gender, age, length of service, or other variables in selecting the sample group.

The researcher used personnel and pay records from one school district in order to develop a consistent compensation base. It was considered important to control the compensation element because the career path and adult-life stages of the individual(s) occur in the context of the school district's policies and procedures (Sagaria and Johnsrud, 1987). This study is a first step towards understanding reward systems designed to meet the career needs of individuals within the context of district "affordability." This could be the basis for further theoretical testing in other school districts and using other reward system elements (pension, insurances, etc.).

Limitations and Delimitations of the Research

The only criterion used for analysis in this study was the compensation level paid to administrators. A reward system consists of many elements, but elements beside salary were not part of this study.

Some limitations of the study were that age, sex, academic achievement (degrees earned) and other variables were not specifically considered or manipulated in the research at this time. Factors such as varying state formulas were not considered; the study used one system with its extant group of administrators with pay influenced by (1) a single set of policies, (2) a single tax base, and (3) a single state and formula to test the feasibility of the hypothetical model.

Data Analysis and Interpretation

The data analysis consisted of five steps: (1) data collection, defined as the process of selecting "raw data," (2) data reduction, or the process of categorizing data to the desired units, (3) data manipulation, or the process of projecting data using the model, (4) data display, an organized assembly of information (designing of the model) to be used for conclusion-drawing, and (5) conclusion-drawing/verification, the process of deciding what things mean, noting regularities, patterns, explanations and verifying the findings.

Data were displayed through a narrative text with tables and charts. However graphs and other figures were also used to explore and display relationships and/or interpretations of findings.

The text describes the statistical information generated by the theoretical model. The information was analyzed to determine if the compensation levels received under the various assumptions resulted in any significant economic differences (e.g., compensation paid) over the work career of an administrator.

Relationships were reviewed utilizing the data generated under the assumptions to ascertain whether the results should have any affect on recruitment, retention, and performance/productivity of the administrator. Projections of the results can be used to hypothesize the impact they might have on other segments of the reward system and their effect on the budgets of the school district, performance levels, retention of personnel, and recruitment of staff.

Compensation practices must be developed that provide starting pay levels that are competitive in the market place to attract qualified personnel. At the same time, the compensation system must recognize and reward employee with pay schedule(s) in their early adult-life stages that meet their work career and family needs to insure retention of qualified personnel and optimum performance levels.

ORGANIZATION OF THE STUDY

Chapter one of this study includes the introduction; rationale; statement of the problem; purpose; objectives; significance; research questions; definitions; and statement of design which included the research methodology, data source and sample limitations and delimitations of the research, and data analysis and interpretation. Chapter two provides for a review of the literature which included the overview; adult-life stages; work-career stages; theories of employee motivation (content and process theory); labor trends in education as related to recruitment and retention; other reward system components; compensation practices; and the summary. Chapter three contains the research design and methodology section which includes the introduction, purpose, criteria, validity and reliability/replicability, methodology, description of the sample, limitations, assumptions, and the importance of the study. Chapter four is an overview of the analyses of data which includes the introduction, background, and questions. Chapter five concludes with the summary and findings, conclusions, recommendations, and discussion of this research study.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

This chapter examines elements of adult-life stages, work career paths, motivation, labor trends in education, reward system components, and compensation practices. Each section is a rewiew of current literature covering the specific topic. Its purpose is to generate information to be used in a theoretic compensation model and establish some review of the state-of-the-art.

The first section is a review of the theories of adult-life stages. The section has two parts: life stages of individuals and life stages of teachers and administrators in education.

The second section is a review of theories of work career cycles. This section addresses basic issue(s) of one's work career in the 1990s, potential problem(s) facing individuals in his or her work career, definition of the problem(s), the relationship between work and adult-life stages, and consideration for improving the relationship between life and work.

The third section is a review of theories of employee motivation. Two theories are reviewed in the literature of organizational behavior. The focus of the review

concentrates on the content and process theories of motivation. Compensation is analyzed to determine its impact and use as a motivational tool on the job.

The fourth section is a review of the current literature on the labor force in education. The review consists of the current levels of personnel, projected labor needs, and the potential for recruiting and retaining the personnel needed.

The fifth section is a review of other reward system components available to school administrators and of incentive opportunities found in the business community.

The sixth section is a review of current compensation theories and practices in education and business. In the education field the review will concentrate on the traditional methodology(ies) along with newer approaches being used, such as career ladders and frontloaded plans. The review of business will concentrate on current pay practices being used to motivate employees.

The emphasis of the literature review is to address a problem found by the President's National Commission on Excellence in Education as reported in A Nation at Risk (1983), that being, "too many teachers are being drawn from the bottom quarter of graduating high school and college students." (p.22) One answer to the question concerning how we attract, recruit, retain, and motivate personnel needed

to lead education into the twenty-first century may lie in how we utilize the reward systems available to us.

For the purpose of this study, the compensation element of the total reward system was used. Methods of compensation were reviewed, and a theoretical model was proposed based on the theories of adult-life stages.

Compensation by itself is not the only motivator for employees. A major consideration is how people feel about their profession and work, how work impacts their lives and the respect they receive for their efforts from the community, peers, friends, and family. Sizer (1984) stated that society utilized three elements to measure respect: autonomy, money, and recognition. Shanker (1983) cited the need for appreciation of teachers as essential to improve education in his address to the National American Federation of Teachers (AFT) convention.

School district policy makers and legislators generally lack the understanding needed concerning adult-life and career stages of teachers and administrators. These stages affect the types of reward systems that should be offered by the school district to minimize the impact of recruitment, retention, and attrition.

Hanushek (1989) proposed that school policies should not be formulated on the basis of expenditures, class size, teachers'/administrators' education, or experience. The

most important criterion to determine rewards is performance within the structure.

A change in the organizational structure is needed with different incentives that could produce new results. Increasing salaries alone does not guarantee increased performance by the teacher or administrator. The new system would require the school district leaders to choose and retain the best teachers/administrators available.

Adult-Life Stages

Child and adolescent growth and development have been substantially documented by Freud and Jung (cited by Levinson, 1978). Researchers (e.g., Erickson, 1963; Sheehy, 1976; Levinson, 1978; Wrightman, 1988) have studied adult development and suggested the existence of adult-life stages. The adult-life stages occur in sequential ordering, but the specific issues to be faced may differ according to sex and age. The issue of gender differences suggests that additional research is needed to identify specific issues men and women face in their adult-life stages (Sheehy, 1976, Levinson, 1978).

Each adult-life stage can be considered a season (period of time within one's life as they move their human growth cycle). Levinson et al., (1978) identified that (A) early adulthood period (17-40 years of age) consisted of (1) the early adult transition, (2) entering the adult

world, (3) age 30 transition, and (4) the settling down period; (B) middle adulthood period (40-60 years of age) consisted of (1) mid-life transition, (2) entering middle adulthood, (3) age 50 transition, and (4) the culmination of middle adulthood; and (C) late adulthood period (60-? years of age) consisted of late adult transition and beyond. Figure 2 depicts the various stages and individual experiences (transitions) in person's life with the approximate corresponding time frames (years of age) based on Levinson's et al. research.

Each life stage has different characteristics that contribute to the need patterns of an individual in relationship to work and family. Levinson et al. (1978) stated, "work is also of great psychological importance; it is a vehicle for the fulfillment or negation of central aspects of the individual." (p.9)

Sheehy (1976) identified the various adult-life stages as: pulling up roots (18-22 years of age), the trying age), the deadline decade (35-45 years of age), and the renewal or resignation stage (45 and beyond). Figure 3 depicts the various stages in a person's life with corresponding time frames (years of age) based on Sheehy's research.

The stages mentioned by Levinson et al. (1978) and Sheehy (1976) are linked to or correspond to the psychological needs of individuals and direct their

FIGURE 2

DEVELOPMENTAL PERIODS IN EARLY, MIDDLE, AND LATE ADULTHOOD AS RELATED TO TRADITIONAL VS. ADULT-LIFE STAGE COMPENSATION CURVES

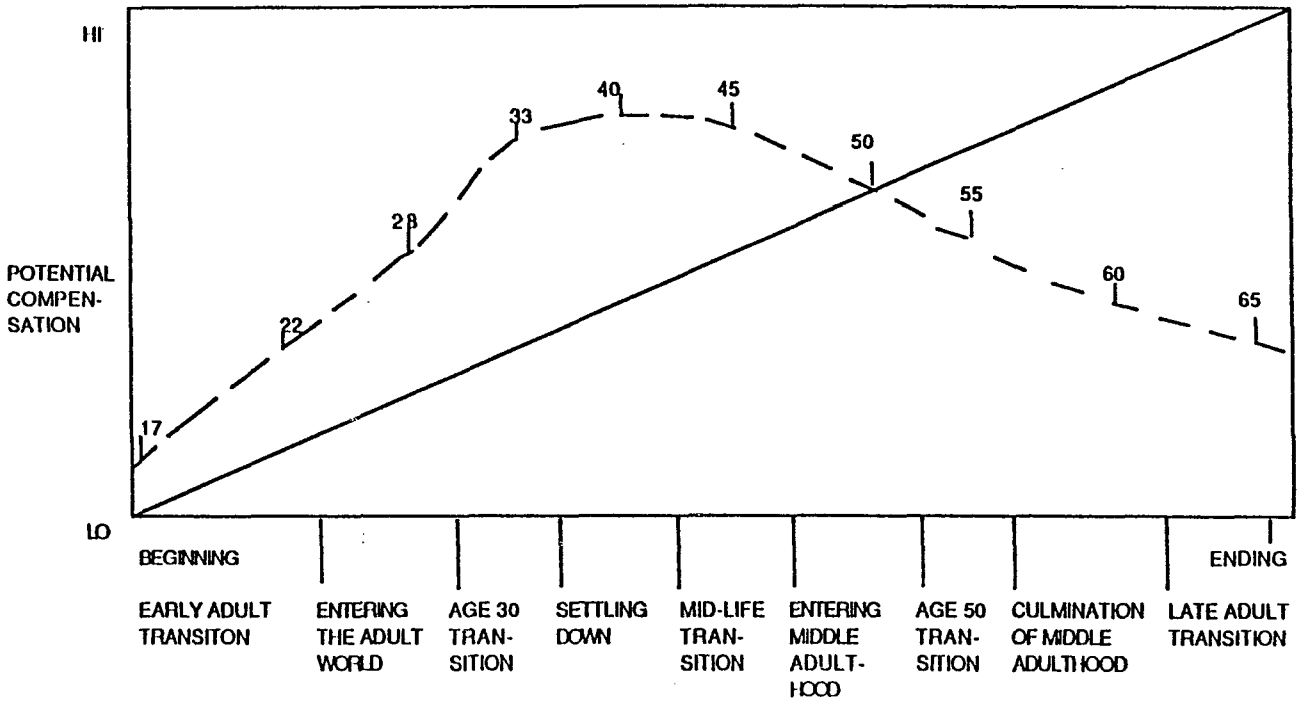
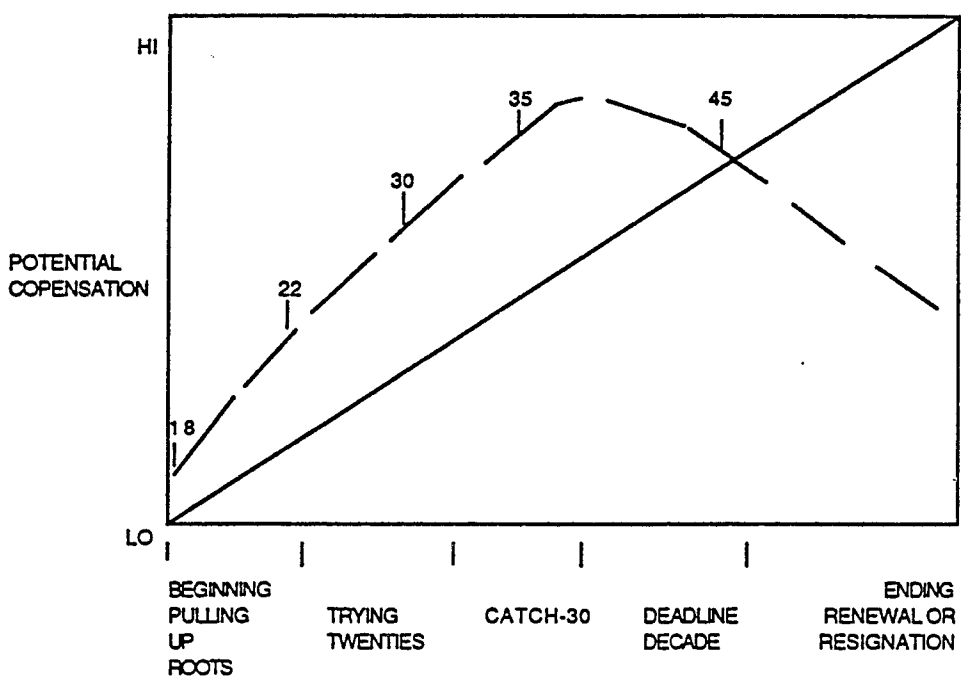


FIGURE 3
PASSAGES: CRISES OF ADULT LIFE AS RELATED
TO TRADITIONAL VS. ADULT-LIFE
STAGE COMPENSATION CURVES



attention to the dependence, independence and responsiblity of self, others, and the work environment. twenties (22-30 years of age), catch-30 (30-35 years of

Super (1963) suggested four developmental life and career-pattern stages: exploration, establishment, maintenance, and decline stages. His research related one's adult-life stages to one's work career. Hall's (1976) model consisted of four work-career stages: trial stage (preliminary job decisions and settling down), establishment/advancement stage (rivalry and competition, facing failures, and dealing with work and family conflicts), mid-career stage (view of self in relation to work and family, and self-indulgence or competitiveness are reduced), and the late-career stage (development of interest within or beyond the work environment).

Teachers and administrators have identifiable adult life and work-career stages according to the research conducted by Burke et al. (1984) and Huberman (1989). Huberman's (1989) research identified the stages as: survival and discovery (entry level with no prior experience while confronting the complexities of the position), stabilization (stabilization of adult responsibilities: commitment to the profession), experimentation/activism (consolidation of one's skills, awareness of institutional barriers, and the need for stimulation), taking stock:self-doubt (mid-career crisis), serenity (age 45-55, relaxed and

self-accepting to the job, gradual loss of energy and enthusiasm), and finally disengagement (increased withdrawal and internalization from work, and concerns for other activities or pursuits).

Burke et al. (1984) addressed the educator's work-career cycle and the environmental factors that affect it. They considered the impact of the individual's personal and the organizational environment on the individual's career cycle. The individual's career cycle consisted of: induction, competency building, enthusiasm and growth, career frustrations, stability and stagnation, career wind-down, and career exit. The personal environment components (variables) were: family, positive critical incidents, crises, cumulative experiences, avocational outlets, and individual's disposition. The organizational environment consisted of: regulations, management style, public trust, societal expectations, professional organizations, and unions.

Table 1 depicts and compares adult-life and career-work stages of an individual based on various research theories. Each stage is compared by periods of time based on the chronological age of the individual. Table 2 provides sets of characteristics or descriptors for each adult-life or career-work stage.

When a person's adult-life stages and psychological needs are met through the work-career stages, the employee

experiences job satisfaction; when job satisfaction does not occur, job dissatisfaction, frustration, disenchantment, and potentially "burn out" may occur. Currently, the work force's attitude toward work careers is that work must allow them to combine both their "work career" environment with their family and/or personal needs.

Although age is a primary characteristic of adult-life stages, predictability, sequential order, distinctive development tasks and activities, and transition periods are all part of an individual's adult-life stage patterns (Hall, 1977; Levinson, 1978). Each individual moves from stage to stage; he or she is faced with distinctive developmental tasks found in each stage. Each individual attempts to work through the tasks or events, thereby resolving or removing obstacles that will prohibit success in the other stages of life. These behaviors/actions are also intended to assure that they will not reappear as problems or barriers to growth (Levinson et al., 1978). Each individual must successfully handle the developmental tasks in the current stage as a prerequisite for moving to the next stage (Erickson, 1963; Sheehy, 1976; Levinson et al., 1978).

Stages are periods of tranquility for the individual. The periods of time that bridge the stages are called "transition periods;" they allow individuals periods of time to incorporate the "old and new" into their adult-life stages (Levinson et al., 1978).

TABLE 1

Adult-Life and Career-Work Stages

Year in Age	Researcher(s)					
	Levinson et al. *	Sheehy *	Super **	Hall **	Huberman **	Burke et al. **
20. . .	Early Adult Transition (17-22)	Pulling Up Roots (18-22)	Explor-ation (15-25)	Trail (17-22)	Survival & Discovery (21-24)	Preservice (17-21)
25. . .	Entering the Adult World (22-28)	Trying Twenties (22-30)	Estab-lishment (25-45)	Estab-lishment & Advance-ment (22-40)	Stabilization (24-27)	Induction (21-25)
30. . .	Age 30 Transition (28-33)	Passage to the Thirties (30-35)			Experiment-ation/Activ-ism (27-40)	Competency Building
35. . .	Settling Down (33-40)	Deadline Decade			Taking Stock: Self Doubt (33-40)	Enthusiasm & Growth (25-35)
40. . .	Mid-Life Transition (40-45)	(35-45)		Mid-Career (40-55)		Career Frustration
45. . .	Entering Middle Adulthood (45-50)	Renewal and Resignation	Main-tenance (45-65)		Serenity (40-52)	Stability & Stagnation (35-50)
50. . .	Age 50 Transition (50-55)	(45 & beyond)				
55. . .	Culmination of Middle Adulthood (55-60)			Late Career (55-?)	Disengagement (52-?)	Career Wind-Down (50-60)
60. . .	Late Adult Transition (60-65)					Career Exit (60-?)
65. . .	Late Adulthood (65-?)		Decline (65-?)			

Note: * Research concentrated on adult-life stages
** Research concentrated on occupational/work-career stages

TABLE 2
Characteristics or Descriptors of Adult-Life and Career-Work Stages

Stages	Levinson	Sheehy et al.	Super
(1)	EARLY ADULT TRANSITION *terminates pre-adulthood & existing relationships with important relationships (parents) *entry into adult world *decisions about role, job, etc.	PULLING UP ROOTS *attempts to "break out "from relationship with parents *tries out various role identity (peer, sex, occupation, and ideology)	EXPLORATION *self-examination *role tryouts with the intent to select a career
(1)	Hall	Huberman	Burke et al.
	TRIAL *acquires knowledge *develops values & attitudes *wants challenging work *need for psychological involvement in one's work *high salary *needs feedback *social status & prestige	SURVIVAL AND DISCOVERY *reality-shock for new teachers *complexity of the job *determining instructional methodology *preoccupation with self--can I do do the job *enthusiasm for the the pupil	PRESERVICE *preparation for a career

TABLE 2 (continued)

Stages	Levinson et al.	Sheehy	Super
(2)	ENTERING THE ADULT WORLD *initial choices regarding occupation, love relationship, peer relationships, values and life styles *explores adult living *tries to create a stable life	TRYING TWENTIES *attempts to begin accomplishing personal aspiration *prepares for life work *develops relationships *concern that choices made are irrevocable	ESTABLISHMENT *puts effort into developing a niche in organization *early years in the stages have an element of exploration about job *later period is stabilized & a high level of creativity
(2)	Hall	Huberman	Burke et al.
	ESTABLISHMENT/ ADVANCEMENT *rivalaries develop on the job *competition for jobs and career growth occur *failures loom before before the individual *conflicts with work & family appear	STABILIZATION *takes on adult responsibilities *commits to the profession *less direct supervision *mastery of subject matter and comfort	INDUCTION *beginning years of of employment *socialized into the system *seeks acceptance by by peers, students & supervisors *tries to establish comfort & security with position

TABLE 2 (continued)

Stages	Levinson et al.	Sheehy	Super
(3)	AGE 30 TRANSITION *works on flaws and limitations in first adult-life structure *creates a basis for the next stage *depends on individual how stressful the transition will be	PASSAGE TO THE THIRTIES *feels restricted career and personal relationships *may destroy life structure of the twenties (job/ divorce, etc.) *potential to become conusmed with work & less with family ties	MAINTENANCE *tries to maintain position in the world of work *creativity is minimal
Stages	Hall	Huberman	Burke et al.
(3)	MID-CAREER *looks at self in relationship to work work or family *reduction in self-indulgence and competiveness on the job *higher levels of stress appear	EXPERIMENTATION/ ACTIVISM *consolidation of instructional increased output *levels of experimentation occur *attempts to increase one's impact *recongizes institutional barriers	COMPETENCY BUILDING *attempts to improve teaching skills and abilities *openess to innovation *job is a challenge *attend graduate programs, workshops, voluntarily ENTHUSIASM & GROWTH *attains highest levels of competence *loves the job *high levels of enthusiasm & job satisfaction

TABLE 2 (continued)

Stages	Levinson et al.	Sheehy	Super
(4)	SETTLING DOWN *concentrates on developing structure or relationships with work, family, friendships, leisure and community *attempts to realize youthful aspirations and goals *establishes a niche in society *tries to "make it" business/work world *develops a "ladder" for advancement in power,fame, creativity, family life and social contribution	DEADLINE DECADE *loss of youth *deterioration of physical powers *reexaminine and reevaluate our goals *second careers become a viable choice *reemphasize energies away from work	DECLINE *physical & mental powers decline *work activities change and overtime they will *develop new roles-first as a selective participant, then as an observer
(4)	Hall	Hubberman	Burke et al.
	LATE CAREER *development of interests beyond the job *development of interests other than present work responsibility *begins adjusting to retirement	TAKE STOCK: SELF-DOUBT *mid-career crisis appears *growing sense of monotony with the job (12 to 20 years of teaching).	CAREER FRUSTRATION *disillusionment with teaching as a job & career occurs *job satisfaction begins to wane STABILITY & STAGNATION *resigned themselves to the job *do their job but very little more *go through the motion *disregard professional development opportunities

TABLE 2 (continued)

Stages	Levinson et al.	Sheehy	Huberman
(5)	MID-LIFE TRANSITION *evaluates life structure as related to family, friends, work, and community *wants to be able to express desires, values, talents, and aspirations	RENEWAL OR RESIGNATION *either one renews with a new life structure or if no change occurs-resignation from *support can be withdrawn from an individual who does not change (divorce) *at 50 resignation can be more traumatic *friends can become more important *increase need for privacy *after 50, the motto is "no more bullshit"	SERENITY *teaching/behavior becomes more mechanical *relaxed & self-accepting about classroom activity *loss of energy & enthusiasm *increased confidence and self-acceptance levels *places greater distance between one-self and students
(5)	Burke et al.		
	CAREER WIND-DOWN *begin their preparation for leaving teaching		

TABLE 2 (continued)

Stages	Levinson et al.	Huberman	Burke et al.
(6)	ENTERING MIDDLE ADULTHOOD *drastic changes in job, family, relationships, etc. *emphasis on "satisfactoriness" in family and job. *some individuals experience high creativity *less traumatized by ambitions, passions, and illusions of youth	DISENGAGEMENT *increased withdrawal from the career *less investment of time and energy in the career	CAREER EXIT *years after learning teaching *period of involuntary unemployment or alternative career exploration

Stages	Levinson et al.
(7)	AGE 50 TRANSITION *will either work on tasks of life structure or modify
(8)	CULMINATION OF MIDDLE ADULTHOOD *attempts to build a second adult-life structure *attempts to rejuvenate oneself.
(9)	LATE ADULT TRANSITION *tries to conclude tasks and structure of Middle Adulthood period (job, family, relationships, etc.) *develops a structure for late adulthood (retirement, family, etc.)

Work Careers

The message of the 1990s is that employees planning for the future now expect a joint effort between the organization and individual in the development of their work careers (Garnitz, 1990). Adults view their work careers in many ways. Some try to combine their work careers with their personal and/or family needs. The era of corporate paternalism, to a large extent, is gone, along with the 30-year employee. This message seems clearer and clearer in the education movement with shortages of personnel, high attrition rates in the teaching and administrative areas and the projected large retirement levels in this decade. Interestingly, this comes at a time when futurists (e.g., Drucker, 1989) predict a new information age with a heavy reliance on knowledge workers instead of production workers. Year-around schooling and continuing education by non-traditional adults are on the rise.

Individuals in any line of work endeavor will be faced with "crisis," "career plateauing," and even "derailment" within their adult-life stages. How one responds to these events will have a favorable or unfavorable outcome on a person's ability to complete one adult-life and/or work career stage.

Bardwick (1986) defines career plateauing as a concept that says that when a major aspect of life has stabilized, as it ultimately must, we may feel significant

dissatisfaction. The essential source of dissatisfaction is that the present is not engrossing and the future is not clear.

Derailment (Lombardo and McCauley, 1988) is involuntary and punitive and occurs when an individual who was expected to go higher up in an organization, and who was judged to have the ability to do so is: fired, demoted, leaves, or is plateaued below his or her expected level of achievement.

The signs caused by "plateauing and derailment" generally begin to appear between 35 and 40 years of age (McGarvey, 1990). In Levinson's et al.(1978) research this time is known as the "settling down" phase of adult-life while Sheehy (1976) refers to it as the "deadline decade."

Levinson et al. (1978) identify two major developmental tasks for this period: tries to establish a niche in society: competency in the work endeavor, stabilizes life/family needs, and becomes a member of the community; and strives to advance on the job. The inability to complete the above-mentioned developmental tasks will force the individual into the next level of adult-life stages (mid-life transition) without satisfying the person's needs.

Certain characteristics individuals have about their work careers impact their ability to deal with the developmental tasks found in the specific transition period. These characteristics are feelings, perceptions, and performance (Geddie and Strickland, 1984). Dawson (1983)

points out that organizations contribute to the problem by the use of specialization of task, career pathing for all employees, and compensation administration practices (acceleration to the top and the expectancy level of merit increases).

An individual's work career should be considered a period of time when one can pursue work-career and adult-life stage needs. Work can be considered a prime factor in how an individual experiences the passage of time through his or her adult-life.

Dawson (1983) proposes that organizations become more tolerant of second careerists, while recognizing that changing a career mid-stream, even accepting substantial pay cuts, may not be cause for questioning an applicant's mental ability. He also points out out that the concept of "career paths for all" should be forgotten. Career paths need to be restricted and used carefully in selected cases. This concept does not seem to be a consideration of school district personnel administrators when they develop and recruit school administrative personnel.

Eberhart (1990) points out that many other occupations offer flexibility to move without further training; however, for teachers and administrators, flexibility is often limited to movement from school to school or district to district unless movement is preceeded by advanced training. Being required to seek additional qualifications (education

certification) to continue one's work career path may become the primary consideration. Acquired knowledge of the job is, in most cases, not recognized or rewarded by the current reward system except as longevity.

Whatever the career goals of the teacher or administrator, we must ask what perceptions about career growth and aspirations these individuals bring to the job. Three important questions are:

1. What are the perceived career aspirations of administrators?
2. What are the motivating factors that influence their career decisions to become administrators?
3. What organizational factors do administrators perceive as facilitating and inhibiting their career development?

As the need for qualified personnel in education becomes more critical, school district leaders must begin to revamp and restructure the reward systems used to attract, retain, and motivate school personnel. The employee is planning for his or her future now; therefore, reward systems must be designed to allow the employee to enjoy his or her rewards, rather than endure them. Further, the current call for restructuring or reinventing education and schooling may require new ways to pay employees. Would "privatization" of schools allow "stock option" or employee sharing of unspent funds, or Employee Stock Option Plans

(ESOPs) or other models? The time seems ripe for a review of the new pay options.

Theories of Employee Motivation

Content Theory

Content theories of employee motivation attempt to explain the factors within a person that energize, direct, or stop behavior (Hellriegel et al., 1989). The review of literature provided information about numerous methods of rewards that affect employee behavior. Content theories such as: Maslow's Hierarchy of Needs, Alderfer's ERG Theory, Herzberg's Motivation-Hygiene Theory, and McClelland's Achievement, Power, and Affiliation Theory are used to explain the outcomes employees seek from work (cited in Hellriegel et al., 1989).

Herzberg's (1966) Motivation-Hygiene theory focuses on employee behavior and what motivates the individual to attain the "outcomes" perceived as satisfying. Herzberg's reward system "pulled" employees toward needs fulfillment on the job and in the adult-life stages.

Hygiene factors are rewards that prevent job dissatisfaction in the work environment. Compensation, organization policies, supervision, interpersonal relations, and working conditions are considered the major hygiene factors. When employees are disenchanted with their work, they may seek improvements in one or more of the hygiene

factors. Herzberg contended that if improvement occured in one or more of the hygiene factors, the dissatisfaction levels may be reduced but the job satisfaction level may not be improved or increased. Herzberg argued that hygiene factors were extrinsically oriented to the content of the job because they did not relate to the task being performed. Without task performance, there was little opportunity to experience psychological growth, which was a major part of job satisfaction according to Herzberg.

Motivators primarily contribute to job satisfaction. Herzberg identified achievement, recognition, responsibility, advancement and work itself as the primary sources of job satisfaction. He stated that "motivators" were intrinsic to the content of the work, i.e., task-related, thereby providing psychological growth to the individual and therefore being more satisfying.

Herzberg viewed job satisfaction and dissatisfaction separately and not as opposite directions on a continuum. Motivators produced satisfaction while hygiene factors can produce dissatisfaction. Bem (1977) supported Herzberg's contentions. He stated that rewards that enhanced feelings of personal competence or self-efficacy may increase intrinsic motivation. Deci (1971, 1975) stated that rewards caused individuals to attribute their behaviors to external rather than internal sources and may decrease intrinsic motivation.

Deci (1975) predicted that extrinsic rewards that were contingent on performance levels would enhance instrinsic motivation. Bandura (1976) stated: "the development of self-motivation and self-direction requires certain basic functions that are developed through the aid of external incentives." (p. 104)

Sherman et al. (1984) hypothesized that "the structural characteristics of an organization itself may have a very strong negative impact on levels of instrinsic motivation if the organization approaches the operational end of the structural continuum." (p. 878) Total authoritarism or democracy can contribute to a decrease in instrinsic motivation when individuals feel a lost of locus of control within themselves.

Herzberg (1966) argued that if leaders of organizations are intent on increasing job satisfaction and performance they must pay attention to providing and utilizing "motivators." While trying to reduce job dissatisfaction they need to utilize the hygiene factors (example: compensation). High rates of turnover are characteristics of job dissatisfaction.

Lawler (1981) and Goodlad (1983) asserted that high turnover in education was closely related to the extrinsic rewards available to beginning teachers. In both cases, compensation was a primary detriment for educators leaving the education field.

The Motivation-Hygiene Factor Theory has limitations but provides two important considerations in dealing with employee behavior. The first consideration is that teachers and administrators behaviors can be affected by other factors than compensation. The second consideration is that an increase in the hygiene factors would not necessarily improve job satisfaction or work performance levels.

Process Theory

The process theories attempted to describe and provide an analysis framework for how personal factors (internal to the person) interact and influence each other to produce certain kinds of behavior (Hellriegel et al., 1989). Expectancy theory is an example of a process theory.

The Expectancy Theory suggested that the weakness in motivational content theories failed to explain the processes used by individuals to link rewards and behaviors (Vroom, 1964). The Expectancy Theory explained how individual differences and the motivational processes were linked together through the three concepts of the model: expectancy, valence, and instrumentality.

Expectancy is defined as an individual's perception about his or her ability to participate in a particular activity. Individuals differ in their abilities and perceptions of their abilities and will engage in activities they believe that they will be successful in completing.

The expectancy concept has implications for both occupational choice and longevity on the job. The theory predicts that individuals will select occupations on which they place a high level of expectancy. Silver (1982) noted that on-the-job work experiences could impact the individual's subjective evaluation of his or her ability to attain the desired outcomes. If experience lowers expectancy, the model would predict that an individual would likely seek an alternative career.

Valence describes the attractiveness of the rewards and the individual's preference for the rewards being offered. Content theories do not consider the individual's preference for the rewards being offered. If the reward is highly sought by the individual, the more likely it will influence the individual's behavior. If the individual perceives a link between the behavior and the likelihood of obtaining the reward (instrumentality), the valence may result in a positive, negative, or neutral difference to the individual.

Instrumentality is defined as an individual's perception of the connection between behavior and reward (outcome). The model predicts that individuals will be motivated to improve performance if they believe that better performance levels will result in their attaining the desired rewards they seek. The rewards will possess a positive valence. Instrumentality has important considerations for the effectiveness of compensation systems

that do not distribute rewards based on performance, e.g., the lock-step salary schedules of education. Lock-step salary schedules generally provide increases as a function of time and academic achievement (degrees earned). The expectancy theory predicts that lock-step salary structures will have little effect on the individual's performance since the increased effort/performance does not increase the probability of attaining these rewards. On the other hand, the expectancy theory predicts high instrumentality (relationship) exists between longevity and rewards.

While the researcher used the theories of Herzberg and Vroom to provide some insight into the content and process of employee motivation, neither approach explains all of the aspects of human behavior or provides a detail explanation of the aspects of other approaches that could be used in explaining motivation.

Labor Trends in Education

Recruitment

This section considers recruitment, retention and attrition as three separate issues. They are interrelated through the reward systems offered by the school district.

When school district leaders improve their district's reward systems especially starting/entry-level salaries to teachers and administrators, they substantially improve their chances to recruit the highly-qualified personnel they

desire. Retention of personnel is influenced by the size of change in the school district's overall compensation plan.

Shanker (1988) projected that 50 percent of the teaching force would turn over with the next five-to-seven years. Honig, state education superintendent for California, supported Shanker's conclusions by stating that California would need at least 100,000 new teachers during that period of time (cited in Shanker, 1988). The projected shortages of qualified teachers can only compound the problem of qualified administrators since education administrators primarily come from the teaching ranks.

Within the next 10 years, nearly 50 percent of the nation's school superintendents indicate that they will retire, according to the American Association of School Administrator's (AASA) 1988-89, Status and Opinion Survey (Speicher, 1990). One more concern is the survey's projection that one-third of the current superintendents could retire in the next five years.

The present supply of newly-graduating-teaching candidates is projected to meet only about 50-60 percent of the demand for new hires in the next ten years (Cetron and Gayle, 1990). Johnson's (1987) research found that 40 percent of the superintendents would be retiring in the next five years in the state of Maine.

The National Commission on Excellence in Educational Administration's (NCEEA) (1987) report, Leaders for

America's Schools, recommends that "school districts should have programs to recruit qualified administrators from among their teachers." (Section 2.3) The commission's report points out that as the teaching force dwindles in numbers (not to mention quality), highly motivated and skilled teachers will opt for career-ladder advancements before accepting an administrative position. This situation will require school districts to intensify recruiting efforts.

Shanker (1988) points out that the reform movement has brought about significant improvements in salaries (but according to Shanker the levels are still not high enough). New salary levels alone will not be sufficient enough to attract the quantity and quality of people needed meet to education needs.

The recruitment problem is compounded by the changing demographics of the labor force. For many years women were the largest source of highly-qualified personnel for the teaching ranks. By 1985, the graduates (women) receiving bachelor's degrees in business versus education were about a 2 to 1 ratio. (Shanker, 1988) With increased federal and state regulations covering employment practices, the prediction is that women will not be available for education in large numbers in the future.

The availability of minorities in education faces the same bleak picture as with women. Employment opportunities mandated by civil rights and affirmative action have

provided minorities with many more chances for employment outside of education. The growing percentages of minorities in the general population and in the student population are not reflected in the teacher population.

When one looks at the administrative levels impacted by women and minorities in the work force the problem is even more pronounced. (Schlechty and Vance, 1981) As of 1985, women made up 66 percent of the work force in education. (Shanker, 1986) Only 1.8 percent of the superintendents were women; 23 percent of the elementary school principals were women and 10 percent were secondary school principals (Crandall and Reed, 1986). The NCEEA (1987) reported that the level of women superintendents had risen to 3 percent by the time their report was issued. Why is the number of women in administrative positions so small, when 50 percent or more of the graduate students in educational administration are women?

Schlechty and Vance (1981) pointed out that factors outside of education may be equally or more important to the individual in selecting education as a career or remaining in the profession. Their research in North Carolina suggested that market force intervention (opportunities to pursue careers in other occupational fields) affected females differently than males in selecting education as a career. Minorities, according to Schlecthy and Vance, were affected by the same market factors as white females. The

researchers prosposed three possible explanations in addressing the level of minorities in education: (1) size of the population (especially black males), (2) the use of the National Teacher Examination (NTE) as a valid instrument to determine qualifications, and (3) black females were likely to be natives of North Carolina and from rural orgins thereby, influencing their career choice.

Schlecthy and Vance (1981) pointed out that the issue of quality of teaching was impacted by the quality (academic capabilities) of individuals entering education and the quality of preparation (teacher education institutions). But more important was their hypothesis that the quality of education may be a function of the quality of life (my emphasis) that teaching can provide an individual.

Retention

Research has suggested that teachers and administrators with higher abilities were more likely to leave education than were those persons with lower academic abilities (Vance and Schlecthy). Lewis and Edington (1983) found a significant relationship between mobility and maritial status along with career goal aspirations of the individual.

Achilles (1984) stated "trends portend a leadership crises in education at a time when research is finally recognizing that administration and leadership are pivotal in school improvement and quality educational programs."

(p.127) Achilles concluded that retention of the brighest students may be impossible based on the following hypotheses: the emphasis of unionism over professionalism; good teachers will leave education because poor teachers are receiving the same across-the-board compensation adjustments as competent teachers; and fewer, brighter persons are selecting education as a profession.

Henry (1986) reported that the rate of attrition for new teachers was 26 percent leaving the profession after their first two years and 60 percent of all teachers leaving after the first five years of employment. Two of the most frequently stated reasons for leaving were: (1) leaving for a better paying job, and (2) unable to adjust to the demands of the job.

Tischer and Ernest (1989) studied the career dissatisfaction of teachers in Alabama. They found that inadequate pay was cited as the primary reason for teachers leaving education. Teachers who did moonlighting during the school year and held summer jobs were twice as likely to leave education as those who did not. Men were three times as likely to leave education as women who were moonlighting during the school year. Secondary school personnel who were moonlighting were twice as likely to leave education as elementary school personnel who were moonlighting.

Compensation will continue to be discussed and argued as to its merits in the 1990s and will continue to be used

as a method of retention of qualified personnel. The implications are that policy makers must pay more attention to how they allocate the compensation dollar while realizing the need to improve the overall system of compensation.

Other Reward System Components

During 1980s employees have sought to satisfy their individual needs (safety, security and flexibility) to meet their ever-changing adult-life stages. Employers have sought to control costs of the benefits being offered.

One reward component used by businesses is the flexible benefits plan. Flexible benefits plans, also called cafeteria plans, are arrangements in which employees tailor their benefits package to their specific needs. A 1988 Bureau of Labor Statistics' survey of employee benefits indicated that only 13 percent of the workforce was covered under such a plan. Fewer than 10 percent of school personnel in 1987 were eligible for the flexible benefits plan, while fewer than one-half of the eligible group participated in the plan. Businesses have gone beyond the traditional rewards of compensation, pension, insurance and leave programs to meet the employee's needs by offering such items as sabbaticals, on-site fitness centers, retreats, training, public service programs, recognition programs, day-care, and career/job swapping, to name a few.

Education has attempted to follow the example set by business and has offered an array of rewards to employees on a limited basis (financial resources are/were not available) or benefits were not made available orginally because women made up the largest part of the work force. Their (women) employment was considered a secondary income and did not warrant an extensive reward system as found in business.

Rewards provided by school districts to principals included the following as shown by the Educational Research Services (ERS) in their biennial (1989-90) National Survey of Fringe Benefits in Public Schools

1. Leaves (vacation, sick, personal, etc.)
2. Sabbaticals
3. Insurance (hospitalization, medical/surgical, major medical, dental, vision care, and prescription drugs)
4. Income protection
5. Group life insurance
6. Severance pay
7. Tuition reimbursement
8. Convention attendance
9. Professional dues
10. Transportation expenses
11. Liability insurance
12. Physical exams
13. Retirement plans (pension, annuities, etc.

Three-fourth of the reporting school systems provided annual leave and liability insurance to administrators. Less than 50 percent provided sabbatical leave. Insurance coverage was provided to the administrator and family by 75 percent of the systems. Less than 50 percent of the systems paid the full cost of the insurance coverage for the family.

Vision care and income protection were provided by only 33 percent of the systems.

All systems provided retirement plans with the state's retirement plan as the most prevelant. Other components of the reward system included: social security (57 percent), tax-sheltered annuities (76 percent), and an early retirement option (46 percent). One-third of the systems provided tuition reimbursement to administrators pursuing educational certification. Forty percent of the systems had a severance policy. All systems reimbursed transportation expenses to meetings.

The ERS survey did not report the use of "cafeteria plans" as an option, but only surveyed traditional benefits. The use of "cafeteria plans" could provide the administrator with various options that would improve his or her benefits coverages and act as a tax-reducing benefit. The use of "cafeteria plans" could also save dollars for the school district through reduction in taxes (federal, state and social security) and lower cost for benefits provided to the employee.

Bertelsen (1983) researched for the University of Tennessee at Knoxville the concept of "phased retirement programs" as a way of insuring the quality of the educational institution. Her research addressed the needs of the faculty based on the adult-life stages of the faculty. The emphasis of the phased retirement program was

to meet the needs of individual faculty members by providing assurances of part-time employment and retirement benefits equal to those they would receive at full retirement. A phased retirement program based on Levinson's et al. (1978) adult-life stages might begin as early as the "mid-life transition period" (40-45) but realistically would be considered during the "age 50 transition" (50-55) period (see Figure 2, page 30). This would correspond with most 25 and 30 year-and-out-retirement plans in education or the beginning career-work stage when individuals begin to slow-down, stagnate, or redirect their interests to other activities as indicated on Table 2, pages 36-41.

Compensation Practices

In an extensive examination of teacher behavior, Lortie (1975) surveyed teachers to determine what attractions led them to education. One predominant reason was financial rewards and job security. Goodlad (1985) supported Lortie's findings but noted that low compensation was the second most important reason for educators leaving education.

Benson (1968) emphasized that the lifetime earnings of administrators exceeded by a wide margin the earning potential of teachers. This economic reason is one of the stronger reasons men opt for administrative positions. This practice creates labor shortages in the teaching ranks while creating an over-supply of administrative staff.

Business and education have used reward systems that adhere to the classical concepts of compensation administration by providing the lowest salary possible to a new employee. Businesses have starting salaries that are significantly higher for equal qualifications than are starting salaries in education; they have used progressive methods of rewarding performance and provided full-year employment to name a few.

Although the ability to pay is significant in setting compensation ranges, the methods of rewarding employees over their work careers are far more important in meeting their adult-life stage needs and motivating them to higher levels of performance and job satisfaction.

Business leaders have traditionally focused the organization's compensation practices on the internal and external equity of their ability to pay. Business leaders are concerned about external equity, that being the ability to pay or compensate individuals with specific qualifications in order to attract them to the organization. On the other hand, internal equity is concerned with the relationships among salaries being paid to the employees of the organization. Kanter (1987) discussed compensation principles in the terms of "equity and equality." Equity was defined as an individual earning what he or she deserves (pay for performance). Equality was defined as the practice of paying everyone the same.

Business executives in the past decade have changed their pay practices to meet the changing environments around them in order to attract and retain the workforce needed to meet their goals. Pay-for-performance systems emerged from this hectic period of turmoil as a way to tie business and individual needs together.

Another concept currently considered as a viable alternative is pay-for-skills. Compensation levels are increased as the employee moves from the entry skills level to a fully-productive employee with all the skills needed plus the abilities to problem-solve and lead others. Lawler (1981) used the term "person-based pay" to explain the system that sets compensation rates based on characteristics/skills of the employee, rather than the employee's job (cited in Ledford, 1990). The concept has merit because of its emphasis on the individual and not primarily on the organization's needs.

Pay-for-knowledge rewards an employee, through direct payments, for the ability to perform a related series of tasks or skills rather than for the actual work performed at any given time. Employees who have mastered additional work or job skills receive additional pay for this knowledge even if they are not currently performing those tasks (Krajci, 1990).

Job enrichment is a planned program for improving the quality of the job being performed. Job enrichment can be

defined as a process for expanding the five core job characteristics (e.g., skill variety, task variety, task significance, autonomy, and feedback for the job) for the purpose of increasing worker motivation, productivity, and satisfaction (French, 1990). A similar concept, job enlargement, is defined as the addition of more and different tasks to the job (French, 1990). Both approaches can be used to justify compensation levels. Each approach adds value to the job in the compensation system, resulting in salary increases over the individual's work career. At some point along the adult-life stage curve, the individual must evaluate his or her work career and job. Should the individual decide to do something different, one approach might be to allow an individual to reverse the job enrichment and enlargement process. This reversal could result in a reduction/devaluation of the job in the organization. The result(s) could be a reduction of compensation but would still provide enough compensation to meet the individual's needs in his or her adult-life stage. This practice could be incorporated into a "phased retirement program" similar to the that suggested by Bertelsen (1983).

The importance of the rewards system, and especially compensation programs focused on the individual has occurred in the last few years. Compensation programs can foster

competitiveness, productivity, and cost containment by directing attention to results and not to the methods used.

Education continues to use traditional methods of compensation to recruit and retain personnel even when faced with a changing environment that results in labor shortages, lack of qualified personnel, and limited resources. Existing practices and procedures for teachers and administrators are rooted in the designs and methodologies developed and implemented since World War II (Sedalk and Schlossman, 1986). Current practices of paying teachers and administrators have resulted in increased pay in absolute terms (dollars received for services rendered) but have not provided educators with equitable compensation levels compared to other market sectors.

School districts have traditionally adopted compensation systems built on one of two basic characteristics (or a combination of both): years of service in education and education level/added requirements to remain in the position. Figure 4 shows a basic or traditional compensation system for teachers or administrators called a "step process." Some systems use a base salary with various "factors" or multiples of the base to represent salary adjustments. The effect of both procedures, however, is a pay "curve" that only rewards added preparation and longevity.

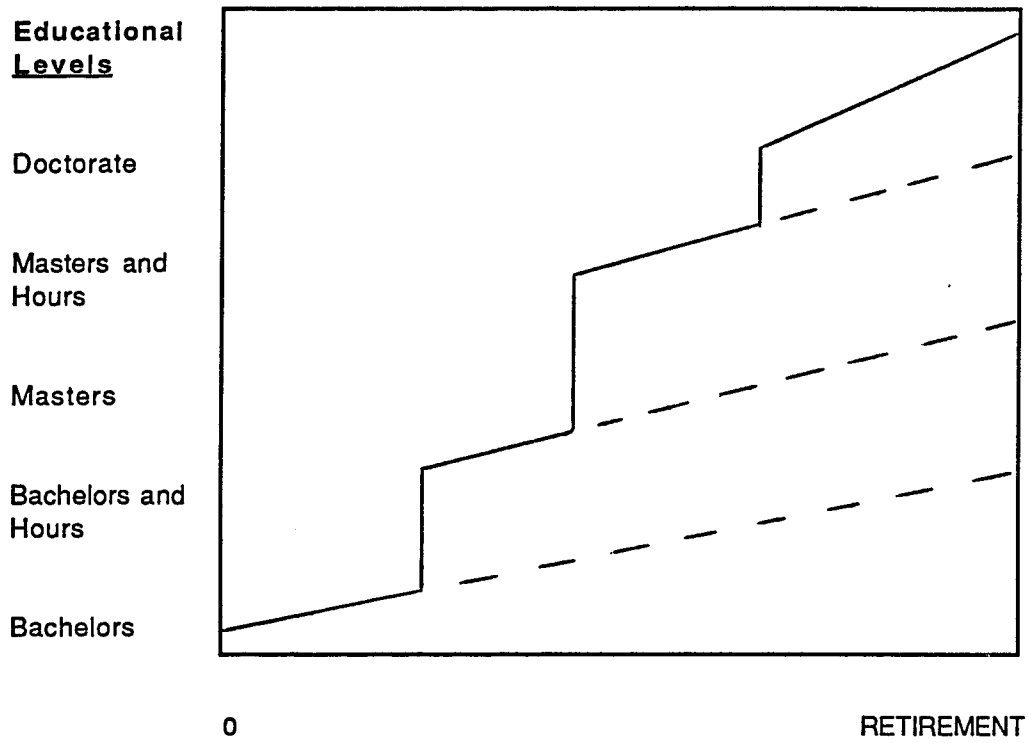
As shown in Figure 4, a teacher's or administrator's salary will increase when one or two things occur: increase in the number of years of experience as a teacher or administrator (moving up the salary line you now are on) and attain additional academic preparation or credentials, allowing the individual to move to a new line on the schedule and to move up that line.

In devising compensation systems for administrators, Thayer and others (1980) found that two-thirds of the salary schedules for principals were independent of teachers' schedules. Three-fourth of the salary plans made distinctions between elementary, middle, and high school positions. Principals' schedules were indexed to other factors, such as: number of teachers supervised, number of

Within the last decade, advocates have called for increased salaries for teachers and administrators. Shanker (1983, 1985, & 1986) called for substantial increases in starting salaries (up to $35,000 for beginning teachers), creative ways of compensating teachers and administrators, and rewards that meet the needs of teachers and administrators. At least seven of the recent reports on education have called for substantial changes in the methods used to compensate teachers and administrators (Monk and Jacobson, 1985). This is especially true for beginning teachers at the bottom of the salary schedules.

FIGURE 4

TRADITIONAL COMPENSATION CURVE
BASED ON DEGREES EARNED
AND YEARS OF SERVICE



Compounding the need for changes in starting salaries is the distribution of resources between veteran and beginning teachers or administrators. Monk and Jacobson (1985) emphasized that school districts that pay higher percentage increments to senior/veteran teachers or administrators would, over time, establish a relatively steep "age-earning profile" compared to other occupations. This practice would have serious implications on the ability of the school district to recruit and retain qualified beginning teachers and administrators. This process of compensating personnel is known as "backloading." When beginning teachers or administrators receive the largest relative portion of the salary distribution, then the practice is known as "frontloading."

The following should be considered in the restructuring of a compensation system: the amount of work a teacher or administrator supplies, the efficiency of the teacher or administrator, the level of the person's accomplishment(s), and the importance of that person's contributions to the educational program. Castetter (1989-90) proposed compensation reform that would consider the purposes, money, positions, people, and performance components that are part of the organization's structure along with the economic values assigned to personnel in the organization, e.g.: base pay, benefits, base pay addends, performance and prerequisites.

Although pay-for-performance concepts have been discussed and in some cases implemented in education their use is not wide-spread. With the advent of the education reform, school administrators and legislators began earnestly to develop and implement changes in the compensation system in mid-1980s. Their approach was to use either: (1) merit pay plan (a system that pays performance bonuses to teachers or administrators who through some system of evaluation; are recognized as being outstanding; the plans do not include additional responsibilities or duties; or (2) career-ladder plan (where additional levels of responsibility, status, and compensation are used).

Some changes have occurred in the area of compensation for educators in the past decade. Nevertheless, traditional pay structures are still the norm, and the education system is still faced with the problem of an ever-expanding labor shortage, higher attrition rates in the novice/beginning teacher's ranks, and a forecasted record level of retirements before the turn of the century.

Tables 3 and 4 represent comparative compensation data for education and health service fields. Both professions have similar academic requirements and provide services directed to the well-being of mankind. Information in Tables 3 and 4 represents the arithmetic averages of compensation levels actually reported for personnel in school districts and/or private psychiatric hospitals for

TABLE 3

Average of Salaries Paid Personnel in Selected Professional Positions in all Reporting School Systems.

	1989-90	1988-89
Superintendent (contract)	75,425	71,190
Assistant Superintendent	62,698	59,655
Subject Area Supervisor	45,929	43,555
Principals		
Elementary School	48,431	45,909
Middle School	52,163	49,427
High School	55,722	52,987
Assistant Principals		
Elementary School	40,916	38,360
Middle School	44,570	42,292
High School	46,486	44,002
Teachers (classrooms)	31,278	29,608

Source: National Survey of Salaries and Wages in Public Schools, Educational Research Service

TABLE 4

Average of Salaries Paid Personnel in Selected Professional Positions in all Reporting Private Psychiatric Hospitals

	1990 as of 10/1/89	1989 as of 10/1/88
Administrator	75,483	74,352
Assistant Administrator	50,082	53,277
Controller	50,027	47,022
Nursing Director	47,636	44,605
Medical Director	136,945	137,196
Psychology Director	58,536	57,417
Social Work Director	39,561	37,024
Nurse (RN) (B.S.)	29,502	27,321
Nurse (RN) (M.S.)	35,884	33,467

Source: National Association of Private Psychiatric Hospitals

various positions found in the educational and the health services fields. Education and health services requirements are very similar in academic preparation (example being a bachelors degree for teachers and nurses and obtaining a passing score on a licensing examination). The salaries represent the average salary for personnel classified in each category. Data in Tables 3 and 4 help establish a relationship between the following classifications: administrator (health) and superintendent (education), principals and directors, and teachers and nurses. The data represent the mid-point compensation levels in a compensation range for the position. Table 5 depicts average starting salaries for selected positions in education and the health service industry. Shanker (1986) called for starting teachers' salaries to begin at $35,000. The American Federation of Teachers (AFT) reported average starting compensation levels by state for teachers during the academic years of 1989 and 1990 as reported on Table 6. The starting salary for beginning teachers with a bachelor's degree in 1988-89 was $19,350 and in 1989-90 was $20,476. These figures are based on a 10-month contract (See Table 6). If the figures were extrapolated to reflect a 12-month contract, the figures would $23,220 (1988-89) and $24,570 (1989-90). In comparing starting salaries of nurses and teachers for this period of time, the difference between the

TABLE 5

Average Starting Compensation Levels for Selected Positions in Education and the Health Services Industry (1989-90)

Position	1988-89	1989-90
Teacher (1)	19,350	20,476
Nurse (B.S. Degree)	31,600	33,180
Assistant Administrator (2) (with Master's Degree in Hospital Administration)	42,000-45,000	44,100-47,250

Sources: Hospital Compensation Service and American Federation of Teachers, 1990-91

Note: (1) figure is based on a 10-month contract period

(2) position similar to Assistant Superintendent in education

TABLE 6

Average Starting Compensation Levels
By State for Beginning Teachers

		1989	1990
1.	Alaska	27,310	29,763
2.	New York	23,000	25,000
3.	Connecticut	22,276	23,783
4.	California	21,491	22,780
5.	New Jersey	21,500	22,500
6.	Maryland	20,756	22,172
7.	Florida	20,314	21,586
8.	Michigan	20,150	21,575
9.	Pennsylvania	19,750	21,350
10.	Virginia	19,500	21,217
11.	Minnesota	20,152	21,157
12.	Arizona	20,300	21,100
13.	Massachusetts	19,783	20,295
14.	Delaware	19,008	20,123
15.	Texas	19,100	20,000
16.	Nevada	18,800	20,000
17.	Wisconsin	19,235	20,000
18.	Missouri	18,541	19,851
19.	Indiana	18,437	19,847
20.	Tennessee	18,600	19,800
21.	Illinois	18,621	19,667
22.	Rhode Island	18,417	19,635
23.	Oregon	18,915	19,418
24.	Alabama	18,930	19,364
25.	Kansas	18,362	19,348
26.	Colorado	18,850	19,234
27.	Wyoming	19,000	19,200
28.	Iowa	18,999	19,145
29.	North Carolina	18,330	19,140
30.	New Hampshire	17,416	19,126
31.	South Carolina	18,025	19,039
32.	Washington	18,148	18,965

TABLE 6 (continued)

		1989	1990
33.	Georgia	17,823	19,892
34.	New Mexico	18,027	18,795
35.	Mississippi	17,500	18,750
36.	Vermont	16,576	17,972
37.	Montana	17,200	17,750
38.	Ohio	17,041	17,721
39.	Nebraska	16,519	17,690
40.	Kentucky	16,672	17,530
41.	Oklahoma	16,500	16,900
42.	Arkansas	16,444	16,673
43.	Maine	15,814	16,599
44.	Louisiana	15,648	16,544
45.	Idaho	15,252	16,214
46.	Utha	15,409	16,040
47.	North Dakota	15,318	15,882
48.	South Dakota	15,354	15,820
49.	West Virginia	15,055	15,778
	U.S. Average	19,350	20,476

Note: Does not include Hawaii

Source: American Federation of Teachers

groups for 1988-89 was $8,380 and for 1989-90 it was $8,610 when comparing the data on a 12-month contract basis.

Summary

The first section of this chapter reviewed adult-life stage theories. The emphasis was on research conducted by Levinson et al. (1978) and Sheehy (1976). Super's (1963) research began to address the impact that life stages have on work careers. Huberman (1989) and Burke et al. (1984) researched the affects of adult-life stages on the careers of teachers and administrators in education.

The review of the literature emphasized that developmental tasks must be completed before an individual can move onto the next life stage and how they impact the individual's personal and family needs. Completion of the tasks and the meeting of needs assures job satisfaction at each adult-life and career stage.

The second section reviewed the research on work career patterns and obstacles facing an individual during his or her work career. Research points out that individuals currently seek careers that meet personal and family needs before making long-term commitments to the job or profession. The organization plays a role in assisting or hindering the individual through his or her career. Section one and two provided the base for the adult-life stage theoretic salary curve analyzed later in this study.

The third section reviewed the literature on organizational behavior and employee motivation to determine Herzberg's Motivation-Hygiene Factor Theory identified outcomes that workers seek from their employment. Compensation (a hygiene factor) is considered an extrinsic reward that prevents job dissatisfaction, a factor in employee turnover. Motivator factors such as recognition and achievement are psychologically rewarding and impact performance.

Expectancy theory suggests that an employee's behavior is affected by how the individual relates it to his or her own experiences. The experiences allow individuals to evaluate their abilities and the instrumentality they perceive that exists between behavior and rewards.

The fourth section reviewed the research on labor trends in education. Projections for the 1990s indicate shortages in the number of teachers and administrators available to meet educational needs and increased attrition levels.

The fifth section reviewed the current practices in business and education in the area of other components found in the various reward systems. The review was directed at the reward system components that could be used to meet an individual's need patterns. Current reward system components being provided to administrators were analyzed.

The final section of the chapter reviewed compensation system practices in business and education. The practices reviewed could provide business or education with a methodology that might improve performance and assist in the recruitment and retention of administrators.

A comparative analysis of salaries in selective positions in the health services and education fields was conducted. This analysis provided some information for a comparative salary base for the theoretical model and helped establish a relationship between the professions.

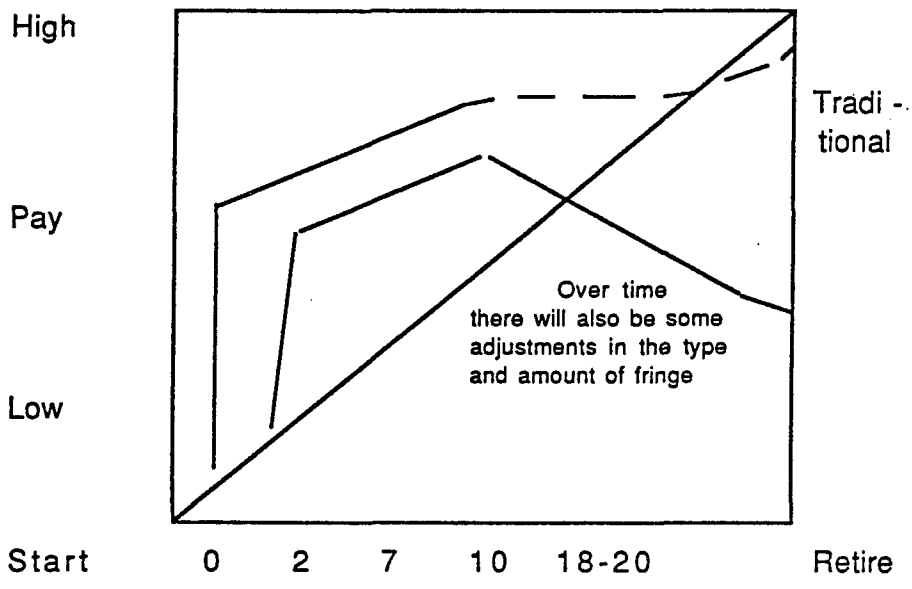
Achilles (1984) attempted to focus attention on recruitment, selection, preparation programs, in-service models, promotion and "fast-tracking" by urging school system leaders to consider seriously a review of their pay structures for teachers and administrators. He conjectured the following:

> Why not tie pay both to performance and to life stages or stages of adult development? Pay should escalate rapidly to accommodate the productive years, the needs of growing families, and to attract and retain top personnel. The pay curve might then level somewhat after the mid-life time (after family is grown and debts have been reduced). In addition to normal retirement, a supplemental annuity could be started that would contribute to income when the pay curve levels out. The administrator would be "vested" in the annuity and would own the annuity after a set number of years. (If the person left prior to that time, the annuity would remain with the district, but the person would retain the normal retirement). Figure 1 portrays this general idea (not to scale). [Figure 5 in this study] In addition, the employer might consider some

> "variable" fringe benefits: more life insurance for the young person; increasing health benefits or perhaps some tuition-payment plan or decreasing life insuranceas the person/family ages. This, or some similar idea, might aid both in recruitment and retention. (p.133)

The next chapter presents a detailed description of the methodology(ies) used in the design of the theoretical compensation model.

Figure 5.
Suggested salary curve for educational administrators. Annuity funds to be paid by district and each participant would have "shares," similar to TIAA-CREF



Source: Charles M. Achilles. Forecast: Stormy Weather Ahead in Educational Administration. Issues in Education, Volume II, No. 2, Fall, 1984. (Figure 1)

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

By the mid-1980s the most recent educational reform movement was underway throughout the United States. One emphasis of the movement was at the local level with major concerns being directed at the quality and quantity of teachers and administrators needed in education to accomplish the goals of the reform movement. Many issues were identified that contributed to the existing situation; they ranged from low salaries, poor benefits and/or rewards, shortages of personnel selecting education as a career, to the inability of school districts to retain skilled personnel in critical areas (math, science, etc.).

During this time there were many ideas to improve the quality of education in the United States. New programs began that empowered local school district personnel to provide for shared goverance and to improve the reward system(s) of teachers and administrators. These changes at best had a minimal effect on the quality of education.

Some teachers and administrators experienced increases in salary during this time period as a result of various new pay schemes (merit, bonus, and career-ladder programs to name a few). The changes had minimal effects on teachers

and administrators (Johns, 1988; Johnson, 1987) especially their perceptions of the program benefits as related to the teacher's and administrator's welfare.

With projected shortages in the teaching labor force as the result of retirements, teachers leaving the educational field, and potential needs to increase the work force, researchers project that educators won't be able to meet the labor needs based on current college enrollments in education (Goldstien, 1986; Johnson, 1987; Shanker, 1988). Many factors contributed to the current labor-problem conditions in education. Eberhart (1990) stated that little effort has gone into identifying alternative career structures for teachers. Jacobson (1986) stated that reward systems (especially compensation) offered by school districts have direct impact on that district's ability to recruit teachers, retain them, and reward those teachers who have proven their ability in the classroom. Monk (1989) stated that school district officals must address the compensation issue as it relates to specialization and the ability to recruit personnel.

Purpose

The purpose of this study was to design a theoretical compensation model for school administrators that incorporated principles from work/career development and adult-life stages and to test that model with actual

district data. Specifically, this study sought to answer the following questions as a way to accomplish the purpose of this study.

(1) What are the similarities, etc. of various theories supporting the development of an adult-life stage model (that is, how do these various theories "come together" to provide the theoretic/conceptual basis from which to build the alternative curve(s)?

(2) What are the probable impacts on a school district's operating costs if a district uses a compensation system based on career paths and adult-life stage principles in comparison to a district that uses the traditional compensation system based on longevity, step increases, and degrees earned?

(3) How would a compensation system look that is designed to parallel career paths and adult-life stages of school administrators?

(4) What are the financial differences between the proposed compensation system and the traditional compensation system of a school district? For example, are the total dollars expended over the employment cycle of an administrator substantially different because of the differing compensation curves? What is the difference?

(5) What, theoretically, is the potential of the career path/adult-life stage compensation model to impact recruitment, retention, and performance (productivity) of administrators over the work/career path?

The theoretical model was developed to analyze, project, and explore compensation levels of an administrator over his or her work career utilizing two assumptions for the design of the model:

(1) typically, traditional compensation system increases are based on the grade level (attainment of academic qualifications) required for the position and the education level and the number of years of service of the person in that position. Subsequent increase(s) to the compensation level will result because of an economic adjustment to the compensation plan and not a shift resulting because of the aforementioned factors.

(2) the adult-life stage compensation curve will employ the Monk and Jacobson (1985) concept of "frontloading" compensation in the early stages of the work/career. At a point identified as the "mid-life transition period (40-45)" the curve will approach its maximum and begin to level off (Levinson et al., 1978;

Bertelson, 1983) before beginning a downward slope (at a rate lower than the traditional compensation curve rate of increase).

Criteria

The model(s) were tested in a school district that has a comprehensive data base. The researcher chose to use an actual district with real people in defined positions, a set tax rate, etc., rather than design an hypothetical district and data base. This adds "reality and field validity" to data used in the model. A district was chosen that (1) agreed to participate, (2) was mid-size, (3) had a detailed data base to advance the purposes of this study, (4) had appropriate policies and salary schedules, and (5) had historical or archival data.

The development of the traditional compensation curve for an individual was based on a salary history of the person and a set of assumptions concerning future increases over the career life of the individual. The curve or compensation line projected the earning potential of the individual using a traditional compensation methodology.

Using assumptions different from those driving a traditional compensation curve, the researcher built compensation "model(s)" incorporating adult-life stage and work-stage concepts. The literature and research review

provided the basic "building blocks" of the proposed compensation curve.

Figure No. 2 (page 30) and Figure No. 3 (page 31) show an hypothetical compensation curve based on the adult-life stage research of Levinson et al. (1978) and Sheehy (1976). The curve emphasizes higher compensation levels in the earlier stages (Achilles, 1984; Monk and Jacobson, 1985) to meet life needs and expectations being faced by employees at that time during their developmental phases of their work/career and adult-life stage patterns. The amount of dollars or percentage difference used for building the hypothetical curves are based upon specific assumptions to establish a salary level above current levels of compensation. This allowed an individual to pursue basic extrinsic rewards that satisfy need patterns in that particular adult-life stage. These assumptions were derived from the two theoretic elements of adult-life and work-life needs. Example for an individual in the "early-adult transition stage" according to Levinson et al. (1978) were the need to explore the possibilities of adult living and/or to create a stable life structure for the individual and/or family. To accomplish either of these two patterns, the level of compensation played a major part in the individual's decision-making and the attainment of needs.

This study was also undertaken to determine what, if any, financial impact might occur by implementing a

compensation system based on adult-life stages. The research questions were proposed to answer the viability of a adult-life compensation model in education.

To test the research questions, the researcher used a theoretical compensation model derived from the traditional and the hypothetical curves to project the earning potential of school administrators. Calculations and projections were used to ascertain total expenditures for salaries of administrators over their working lives using both the traditional curve and the hypothetical curve(s) based on salary schedules and policies of an actual school district.

Question One was answered by the graphic development of Figure No. 2 (page 30) and Figure No. 3 (page 31) which established a compensation curve on "life structures" need assumptions based on the research of Levinson et al. (1978) and Sheehy (1974). The compensation level rate was based on a set of assumptions on the research of Monk and Jacobson (1985) in the early work/career stages and on Achilles' hypothetical proposal (1984) in the later adult/career stages.

Question Two was answered by calculating a total compensation level for an administrative staff of a school district using the traditional and adult-life stage compensation system. By calculating the total compensation level for each model (adult-life versus traditional) one can determine the overall financial impact of the remuneration

paid to the staff over their employment cycle. Once the difference is determined, the impact on the revenue side of the budget can be calculated as it is related to tax rates and/or millage rates of the system.

Question Three was answered by Figure No. 2 (page 30) and Figure No. 3 (page 31) utilizing the adult-life research of Levinson et al. (Figure No. 2), Sheehy (Figure No. 3), and others to project a compensation curve based on their research.

Question Four was answered by calculating the total compensation paid to each individual utilizing adult-life and traditional compensation model. The total salary paid to each individual was added together to determine the total remuneration costs for each compensation model, based on the data from the pilot-tested district.

Question Five was answered by analyzing the salary levels along the adult-life stage model and the projected potential impact on the recruitment, retention, and performance based on current research in those areas. The answer to question five helped the researcher tie the data from portions of literature review (Chapter II) with the findings from this study (Chapter IV) and is presented as part of Chapter V, the conclusions and discussions.

Validity and Reliability/Replicability

Validity

Validity can be evaluated in terms of purpose. Several types of validity, such as content, concurrent, construct, and predictive are classified as either logical validity or criterion-related validity. Logical validity is determined (defined) primarily through judgment.

The theoretical adult-life stage compensation model would remunerate individuals with an amount of dollars equal to or larger than the amount paid utilizing the traditional compensation curve in the early stages of an individual's adult life ("frontloading" as described by Monk and Jacobson, 1985). By "frontloading" the compensation system, the individuals would have the opportunity to reduce or minimize their indebtedness in their early adult-life stage(s) and work/career stage(s). Examples of indebtedness are: setting up a household, marriage, birth of a child, purchase of a home, additional education (especially as related to education and certification processes, and attaining higher levels of compensation under a traditional compensation system), etc. Another consideration might be the individual's decision to save part of the additional dollars from the increase in disposable income while investing those dollars in some type of retirement fund. Careful fund management in a "frontloaded" system could

provide the participant with more disposable income over a worklife than the same amount of funds earned in the traditional manner. A pilot study was developed and tested to determine whether an individual would derive any additional benefits (savings based on the investment of additional dollars) from the adult-life stage compensation model (see Table 7). The total dollars earned from the school system for both methods were the same for the individual. Pilot study results showed some logical validity for the process.

Gay (1987) defined construct validity as "the degree to which a test measures an hypothetical/theoretical construct." The constructs utilized in the adult-life stage compensation model are based on the research and theories of the following individuals: Levinson et al. (1978) and Sheehy (1976) in adult-life stages; the theories of Super (1963) and Hall (1976) in work/career stages of the work force; the theories of Burke et al. (1984) and Huberman (1989) in work/career stages of teachers; and the theories used in the development of compensation practices by various school districts to reward teachers and administrators.

Reliability and/or Replicability

Reliability and/or replicability is the degree to which the theoretical adult-life stage compensation model consistently measures whatever it is intending to measure. Reliability and/or replicability was attained by following

TABLE 7

ALTERNATIVE INVESTMENT APPROACHES UTILIZING TRADITIONAL AND ADULT-LIFE STAGE COMPENSATION METHODS

YEARS OF SERVICE	AGE	ANNUAL SALARY ($)	AMOUNT OF ANNUAL SALARY ($) INVESTED (10%)	INVESTMENT PLUS 6% INTEREST EARNED ($)	ANNUAL SALARY ($)	AMOUNT OF ANNUAL SALARY ($) INVESTED (10%)	INVESTMENT PLUS 6% INTEREST
		TRADITIONAL COMPENSATION METHOD			ADULT-LIFE STAGE COMPENSATION METHOD		
1	30	25,640	2,564	2,717.84	28,204	2,820	2,989.20
2	31	27,020	2,702	5,745.03	29,992	2,999	6,347.49
3	32	27,821	2,782	9,038.65	31,160	3,116	10,031.30
4	33	29,094	2,909	12,664.51	32,876	3,288	14,118.46
5	34	30,365	3,037	16,643.60	34,616	3,462	18,635.29
6	35	31,635	3,164	20,996.06	36,380	3,638	23,609.68
7	36	32,903	3,290	25,743.22	38,167	3,817	29,072.29
8	37	34,172	3,417	30,909.84	39,981	3,998	35,054.50
9	38	35,445	3,545	36,522.13	41,825	4,183	41,591.25
10	39	36,711	3,671	42,604.72	43,686	4,369	48,718.40
11	40	37,979	3,798	49,186.88	45,575	4,558	56,472.98
12	41	39,248	3,925	56,298.59	47,490	4,749	64,895.30
13	42	40,520	4,052	63,971.62	49,434	4,943	74,028.60
14	43	41,794	4,179	72,239.66	51,407	5,141	83,919.78
15	44	43,062	4,306	81,138.40	53,397	5,340	94,615.36
16	45	44,329	4,433	90,705.68	51,261	5,126	105,725.84
17	46	45,601	4,560	100,981.63	49,211	4,921	117,285.65
18	47	46,969	4,697	112,019.34	47,242	4,724	129,330.23
19	48	48,378	4,838	123,868.78	45,353	4,535	141,897.15
20	49	49,829	4,983	136,582.89	43,538	4,354	155,026.22
21	50	51,324	5,132	150,217.78	41,797	4,180	168,758.59
22	51	52,864	5,286	164,834.01	40,125	4,013	183,137.88
23	52	54,450	5,445	180,495.75	38,520	3,852	198,209.28
24	53	56,083	5,608	197,269.98	29,883	2,988	213,269.12
25	54	57,766	5,777	215,229.80	29,882	2,988	229,232.54
TOTALS		$1,021,002	$102,100		$1,021,002	$102,100	
Difference between Principal and Principal Plus Interest Under Each Method				$113,129.80			$127,132.54

TABLE 7 (Continued)

Assumptions for Alternative Investment Strategies for a Hypothetical Case

Traditional Method

1. Individual has a master's degree and earned no other graduate hours.

2. Salary level for years 1 through 11 followed the Clovis Unified School District salary schedule for Step 2; salary level for years 12 and 13 followed Step 3 salary schedule for years 11 and 12; salary level for year 14 through 16 followed Step 4 salary schedule for years 12, 13 and14, and salary level for year 17 followed Step 5 salary schedule for year 14 (see Table 8, page 94).

3. Salary level for years 18 through 25 was calculated by adding a 3 percent increase each year starting with the salary level at year 17 on the Clovis Unified School District salary schedule (Step 5, year 14).

4. Individual worked 25 years in the same pay grade.

5. Ten percent of annual salary is invested at six percent annum on January 1 of each year. This amount is added to the current balance from previous years.

Adult-life Stage Method

1. Individual has a master's degree and earned no other graduate hours.

2. Total annual salary earned over the life time of the individual is equal to the total salary earned under the traditional method.

3. Starting salary was 10 percent above the traditional method starting salary level. Each year the adult-life method increased one percent more over the previous year (ex: 11 percent, 12 percent, etc.). This percentage was then multiplied by the salary level for the corresponding traditional method salary for that year to establish the adult-life salary level. This practice was used through the first fifteen years of the adult-life method.

4. For years 16 through 23, the salary level was calculated at a .96 rate of the previous adult-life stage salary level starting with the 15th year.

TABLE 7 (Continued)

5. Years 24 and 25 are determined by totalling the salary level of years 1 through 23 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($1,021,002). The difference is then divided by 2 to determine years 24 and 25. Then years 24 and 25 are added to the total of years 1 through 23 to determine the total salary paid under the adult-life method (it should be the same as the traditional method - $1,021,002).

6. Ten percent of the annual salary is invested at six percent annum on January 1 of each year. This amount is added to the current balance from previous years.

TABLE 8

CLOVIS UNIFIED SCHOOL DISTRICT
CERTIFICATED MANAGEMENT
FISCAL YEAR 1990-91

RANGE	STEP 1		STEP 2		STEP 3		STEP 4		STEP 5	
	0-29		30-44		45-59		60-74		75+MA	
	YEARLY	MONTHLY	YEARLY	MONTHLY	YEARLY	MONTHLY	YEARLY	MONTHLY	YEARLY	MONTHLY
1	25,640	2,136.67	25,640	2,136.67	27,020	2,251.67	27,821	2,318.42	29,094	2,424.50
2	27,020	2,251.67	27,020	2,251.67	27,821	2,318.42	29,094	2,424.50	30,365	2,530.42
3	27,020	2,251.67	27,821	2,318.42	29,094	2,424.50	30,365	2,530.42	31,635	2,636.25
4	27,020	2,251.67	29,094	2,424.50	30,365	2,530.42	31,635	2,636.25	32,903	2,741.92
5	27,603	2,300.25	30,365	2,530.42	31,635	2,636.25	32,903	2,741.92	34,172	2,847.67
6	28,832	2,402.67	31,635	2,636.25	32,903	2,741.92	34,172	2,847.67	35,443	2,953.75
7	30,062	2,505.17	32,903	2,741.92	34,172	2,847.67	35,443	2,953.75	36,711	3,059.25
8	31,285	2,607.08	34,172	2,847.67	35,445	2,953.75	36,711	3,059.25	37,979	3,164.92
9	32,478	2,706.50	35,445	2,953.75	36,711	3,059.25	37,979	3,164.92	39,248	3,270.67
10	33,745	2,812.08	36,711	3,059.25	37,979	3,164.92	39,248	3,270.67	40,520	3,376.67
11			37,979	3,164.92	39,248	3,270.67	40,520	3,376.67	41,794	3,482.83
12					40,520	3,376.67	41,794	3,482.83	43,062	3,588.50
13							43,062	3,588.50	44,329	3,694.08
14							44,329	3,694.08	45,601	3,800.08

STEP 1 B.A. DEGREE AND REGULAR CREDENTIAL

STEP 2 M.A. DEGREE, B.A. DEGREE, PLUS 30 GRADUATE UNITS

STEP 3 M.A. DEGREE PLUS 15 GRADUATE UNITS; B.A. DEGREE PLUS 45 GRADUATE UNITS

STEP 4 M.A. DEGREE PLUS 30 GRADUATE UNITS; B.A. DEGREE PLUS 60 GRADUATE UNITS

STEP 5 M.A. DEGREE PLUS 45 GRADUATE UNITS; B.A. DEGREE PLUS 75 GRADUATE UNITS WITH M.A. DEGREE OR DOCTORATE DEGREE

-ADDITIONS TO SCHEDULE-

$1,272 15 YEAR ANNIVERSARY INCREMENT

$1,272 20 YEAR ANNIVERSARY INCREMENT

$1,272 25 YEAR ANNIVERSARY INCREMENT

$1,272 EARNED DOCTORATE ADDITIONAL STIPEND EQUAL TO ANNUAL DOCTORATE INCREMENT TO BE PAID FOR FIVE CONSECUTIVE YEARS

NOTE: YEARS OF CREDITED SERVICE FOR CAREER INCREMENT PURPOSES SHALL MEAN YEARS OF SERVICE WITH CUSD AND WILL BE PAID COMMENCING WITH THE 16TH - 20TH YEARS, 21ST - 25TH YEARS, AND 26TH YEAR AND THEREAFTER

the four steps in the methodology section of Chapter III and applying them to a school system compensation program. Utilizing the basic assumptions described in the methodology section, a researcher could develop a traditional compensation curve and then devise (conceptually and actually) an adult-life stage compensation curve to generate comparative data for analysis. Another researcher could use either the analysis steps described here, or develop similar analysis steps to fit the particular case under study. Using the same assumptions and traditional salary schedule as used in this study, another researcher could obtain the same results as obtained in this study.

Methodology

A basic straight-forward approach was used to develop the traditional and adult-life stage compensation curves. The researcher visited the LEA to gather data for the development of tables and figures and other general information during the study. The traditional compensation curve was developed by reviewing a system's existing compensation plan documents and policies to ascertain the basis for that remuneration system. This traditional (time/education-driven) model was projected for the work life of the individual. An actual salary schedule of a school district was used to establish a salary level for each year identified (salary level extended from year 1 until retirement [age 65]). For salary levels above the

existing salary schedule, the salary level was determined by multiplying the last year on the actual salary schedule by a percentage each year to establish the salary level until a complete salary history was developed.

The adult-life stage curve was developed by conducting extensive library research on topics of: (1) adult-life stage(s) research of Levinson et al. (1978) and Sheehy (1976); (2) work/career stage(s) of employees in the workforce (Super, 1963; Hall, 1976) while work/career stage(s) of teachers were identified by Burke et al. (1984) and Huberman (1989); (3) employee motivation/behavior was used to explain the outcomes employees seek from work based on the "content" and "process" theories of motivation (Herzberg, 1966; Bem, 1977; Deci, 1971, 1975; Sherman, 1984; Vroom, 1964; and others); (4) labor trends in education as they affect recruitment (Shanker, 1988; Johnson, 1987; National Commission on Excellence in Education Administration, 1987; Schlechty and Vance, 1981; and others) and retention (Lewis and Edington, 1983; Achilles, 1984; Henry, 1986; and others) (5) other reward system components (Educational Research Service, 1989-90 and Bertelsen, 1983); and (6) compensation practices (Benson, 1968; Goodlad, 1985; Kanter, 1987; Lortie, 1975 and others).

The library research generated background information on adult-life stage and work/career stage development patterns that was synthesized into various tables used to

answer Question Two; second, assumptions were developed as they related to compensation practices; third, a model was developed; and finally the model was tested. Data generated by the model were summarized, analyzed, and evaluated to provide answers to the stated research questions.

To validate the theoretical compensation model the researcher field tested the adult-life stage compensation model using data from an actual school district. By field testing or field validating the adult-life stage compensation model the researcher selected a naturalistic approach called "rationalistic controlled inquiry." (Guba, 1981) Rationalistic controlled inquiry utilizes quantitative methods applied to an actual setting to validate the theoretical research questions being proposed.

Description of the Sample

A unified school district was selected from the State of California to test the model. The Clovis Unified School District (CUSD) was invited to participate in the research project because the system had an available data base; they expressed an interest in the research, recent research was available to provide information about the system, and they volunteered to participate in the research study (see Appendix A, page 169, Letter). The CUSD is a combination rural and urban Local Education Agency (LEA) comprising almost 23,000 students (1991) in grades K-12.

The work force of the LEA consists of personnel classified as: non-certificated, certificated, and professional. The certificated personnel classification was selected for the field-test since it included school administrative personnel. Certificated personnel consisted of teachers, administrators, and other school-support personnel.

The administrators group consisted of three sub-groups: (1) deputy, associate, or assistant superintendents and administrators; (2) coordinators and directors; and (3) site-management personnel (principals, assistant principals, and learning directors).

The administrators group consisted of 66 personnel as July 1, 1990. (Table 9) The superintendents and administrators sub-group consisted of 14 people, the coordinators and directors sub-group consisted of 10 people, and the site-management personnel sub-group consisted of 42 people.

Superintendents and administrators are responsible for district-wide functions or activities of the school system. Coordinators and directors are responsible for specific district functions or activities of the school system. Site-management personnel are responsible for the day-to-day management of a school-level unit in the system.

One other characteristic of the LEA is its stability of staff. The current staff reflects long-term service to the

TABLE 9

Field-test Local Education Agency (LEA)
Certificated Administrators Group by
Job Title Classification

Deputy, Associate, or Assistant Superintendents and Administrators (n=14)

Administrator for Instruction Management Units
Administrator for Instruction
Administrator for Research, Planning and Technology
Administrator for Standards and Evaluation
Assistant Director for Adult and Vocational Education
Assistant Director of CWA/SARB
Assistant Superintendent
Associate Superintendent
Deputy Superintendent

Coordinators and Directors (n=10)
(Not all positions were filled)

Coordinator of Independent Study
Coordinator of Instruction
Coordinator of Special Projects
Coordinator of Testing and Research
Coordinator of Adult ane Vocational Education
Director of Adult and Vocational Education
Director of Alternative Education
Director of Attendance and Child Welfare
Director of Child Development
Director for Regional Learning Center
Director of Research and Planning
Director of SELPA and Psychological Services
Director of Special Projects
Director of Staff Development
Director of Support Services
Director of Career and Vocational Preparation Education

Site-Management Personnel (n=42)

Assistant Principal - C/VPE
Deputy Principal - High School
Learning Directors - Adult Education, Intermediate School and High School
Principal - Elementary (Small School), Elementary, Intermediate, and High School

LEA as either a teacher, administrator, or professional member of the organization.

Limitations

The costs of remuneration (base salary was used without ratio factors or stipends to establish annual salary levels) were determined by comparing total expenditures (salary paid) over the career/work life of an individual using the adult-life and traditional compensation system. It is not possible to determine all costs associated with a reward system. An example of a compensation-based reward is life insurance which is traditionally priced on the units per $1,000 of salary times the cost per unit. The impact of decisions made by an individual might affect medical insurance costs as they relate to the deductible and dependent coverage. Changes could be benefical to both the individual and the school district if choice was available. Thus, a fixed assumption was made as the base for the curve analysis in the field test.

The present study did not take into consideration gender, age, academic achievement, and other variables that could be manipulated in the research. Another factor not included in the research was the impact of varying state formulas. These variables would be part of any specific model developed for an actual district or school system. Supply and demand for specialty areas were not considered

and these might influence either a negotiated entry salary as a teacher or a base being increased to attract the speciality areas, or increase when a person moves from teaching to administration, which is a common career path in education.

Monk and Jacobson (1985) argued that new teachers or administrators have little experience with intrinsic rewards (example: ownership, belonging, etc.). They garner intrinsic rewards over a period of time. Thus, extrinsic rewards should be available to teachers to reward their efforts during initial years of service. In the present study the researcher did not attempt any analysis of specific extrinsic or intrinsic rewards.

Assumptions

By "frontloading" (Monk and Jacobson, 1985) the reward system (higher compensation levels) and offering individuals opportunities to choose other benefits, we provide individuals with resources that can allow them to progress satisfactorily through adult-life and work/career stages with minimum disruption of adult-life goals.

Other costs that impact the theoretical model are administrative costs to implement and maintain a dual compensation system (this assumes that not all individuals would choose to participate). In the revised compensation model, the basis for this assumption was that restructuring

of work assignments would result in changes in compensation levels and other benefits tied to compensation (retirement).

The ability to manage one's "life structure", especially on the job, can (has the potential to) produce higher levels of intrinsic rewards (freedom of choice), greater productivity levels on the job, and more satisfying transitions through adult-life stages (Levinson et al., 1978).

Importance of the Study

Kanter (1977) established that there was a relationship between work/career and family/adult-life stages. Much of the research identified linkages between the individual's work and nonwork lives. She proposed that a "spillover effect" was in place by referring to the impact of experiences in one role (work) in relation to another (family, personal relations).

As Achilles (1984) stated "why not tie pay both to performance and to life stages or stages of adult development?" (p. 113) Reward systems need to accomplish two goals to meet the needs of the individual and the school district. A reward system must provide individuals with a compensation level that meets their needs as they progress through their adult-life stage structures and be cost effective for the school district. A compensation system based on the individual's needs and not organizational needs

should drive the reward system; but a system of this type might also prove benefical to a school district in recruiting, retaining, and motivating teachers and administrators to superior levels of performance.

School administrators should consider the practical difference (financial considerations) of the system's total compensation paid over the life-time of an administrator utilizing the two methodologies and what affect each system would have on the tax burden of the "customers" of the school district. Chapter IV presents the first steps in the study of one alternate compensation plan for eduacation.

CHAPTER IV

ANALYSES OF DATA

Introduction and Background

This chapter includes the analyses of data developed using the adult-life theoretical compensation model for school district administrators as outlined in Chapter III. In this chapter data are presented and analyzed as a means of examining some relationships between a school district's traditional compensation system, the current method commonly used in school systems in the United States and the proposed theoretical adult-life stage compensation system utilizing multiple scenarios to develop and establish potential earning patterns for school administrators over their employment cycles or work careers.

The researcher recognizes the limits of using a single compensation program to develop the theoretical data base. While other Local Education Agencies (LEAs) may obtain different results based on the exact components of their own compensation plans, the LEA used in this study employed a traditional and common approach in its base salary. The system was built primarily on degrees attained and/or years of service (see Table 8, page 94).

The purpose of the study was to design a theoretical compensation model for school administrators that was based

on the principles of adult-life stages and work/career developmental phases. This theoretical model was tested using a LEA's current compensation system to assess the validity and relevance of the theorectic model as an alternative to existing compensation practices. The researcher did not intend to demonstrate through this one theoretic model all of the potential concerns, probabilities, or possibilities available if the LEA would implement the theoretical model as part of its reward program. This study describes the general model and relates the theoretic model to one extant LEA system.

In developing the theoretical model, the researcher conducted extensive library research covering the topics of: adult-life stages, work/career developmental phases, work/career developmental phases of teachers, employee motivation and behavior, labor trends in education, other types of rewards currently being used, and compensation practices available in the marketplace today. This information was synthesized into two methods or "compensation curves" identifying traditional and adult-life stage approaches.

General Approach

The theoretical compensation model consisted of two compensation designs or methods. The first design or method used as a base the present (1990-91) salary structure of an

actual local education agency (LEA).[1] The researcher used the Clovis Unified School District (CUSD) Certificated Management Salary Schedule (Table 8, page 94) to build a traditional compensation structure and curve based on degrees attained and the number of years of service, and the economic adjustment that is made to the salary schedule each year to reflect increases in the economy for purchased goods and services. For calculating salary levels under the traditional compensation system, a three percent adjustment was made each year to reflect movement on the curve. Data are presented in tables to depict salary levels for an individual who represents that sub-group of LEA administrators [in the case scenarios for the school district] when determining the financial impact of the traditional method and/or adult-life stage methods. Tables and figures provide factual and graphic display of the impact of economic adjustments on the different compensation systems (e.g., adult-life and traditional).

The administrator classification in the participating LEA included three sub-groups of certificated personnel: (1) deputy, associate or assistant superintendents and administrators; (2) coordinators and directors; and (3) site-management personnel. Tables were developed by

---

[1] Strother, D. B. (1991). The Clovis, California schools: A measure of excellence. Phi Delta Kappa, Center for Evaluation, Development and Research, Bloomington, IN.

building a scenario based on the actual ages and current base salary levels of the LEA personnel in these sub-groups of administrators. The average age and starting base salary for the sub-groups are shown in Table 10.

TABLE 10

Average Demographics of Certificated Administrators by Sub-Group for LEA

Sub-Group	Age	Salary	(n)*
Superintendents and Administrators	42.6 (43)	$ 45,601	14
Coordinators/Directors	47.7 (48)	$ 45,601	10
Site-Management Personnel	40.9 (41)	$ 45,601	42

* The number of individuals in each sub-group.

Ages for personnel were rounded to the next higher whole year for use in developing the compensation curves.

To develop a traditional compensation curve, the researcher started with a "benchmark" point based on the average age and current base salary level of the sub-group (e.g., Site-Management Personnel averaged 41 years of age with a current base salary of $45,601). Once the "benchmark" salary level was established for the traditional compensation method, salary projections were determined.

Seven assumptions were used in developing the various scenarios for the traditional and for the adult-life stage methods in the theoretical model. Assumptions One and Two derived from the LEA's salary history. These assumptions are:

1. The salary level for a position would reach a maximum. This maximum will probably change based upon future economic trends and factors. Using the 1990-91 economy, the maximum base salary level for the position(s) (excluding other benefits) was assumed to be $75,000.
2. A three percent annual economic adjustment was applied to the traditional compensation method to determine salary levels when actual data were not available from the LEA. The three percent adjustment was identified by the LEA personnel as reasonable based on past adjustments to the existing compensation system.
3. All of the system's administrators would participate in the theoretical compensation model.
4. The LEA would use a zero-based budgeting concept to identify expense patterns and funding approaches associated with any increases in the various compensation levels in the theoretical model.
5. Other costs associated with the LEA's budget would remain constant from year-to-year.

6. Individuals would dedicate themselves to the job tasks and duties first, before any other activities or events (i.e., moonlighting, outside activities other than work, etc.).
7. Employees of the LEA will continue their employment at the LEA until retirement.

In establishing salary levels for the sub-groups, an assumed maximum or ceiling was placed on the salary level for a specific position. The assumption used in this study (1991) was that a certain dollar amount ($75,000) would be the maximum customers (taxpayers) would be willing to pay for a position. Caution should be used when applying this assumption since the following might occur:

1. In some years individuals would not receive an economic adjustment because of financial conditions of the LEA, state, or the overall economy.
2. The value of the dollar in the future may be substantially less than the value of a dollar today. This will require "X" times more future dollars to equal the current value of dollars to allow for comparison of salary levels.

Tables were developed using adult-life stage scenarios that consisted of three sets of assumptions providing alternative earning approaches over an incumbent's employment cycle. The first scenario assumed that the incumbent would earn the same total dollars under the adult-

life stage method as under the traditional method over the employment cycle. The second and third scenarios provided individuals with larger earnings in the early years of their employment. This resulted in somewhat larger dollar amounts earned over the total employment cycle using the adult-life scenario than using the traditional method.

Tables and figures display actual financial data for traditional and adult-life stage compensation methods for two current employees of the LEA pilot test. In developing the traditional compensation curve, the researcher employed the actual salary history of the the individuals from the date of hire through July 1, 1990 (beginning of the current school year). To project salary levels beyond 1990, the current salary level for 1990 was multiplied by three percent to establish the 1991 salary level. The 1991 salary level was then multiplied by three percent to establish salary level for 1992, the next year. This practice was repeated until the individual reached 65 years of age or the assumed maximum salary level of $75,000. Various adult-life stage scenarios were used to project alternative earning patterns for these individuals.

Next, tabled data demonstrate the impact of alternative savings and investment strategies for two individuals. In developing alternative savings and investment strategies the researcher used data from the traditional compensation method and the first adult-life stage scenario (equal

dollars for both methods) to calculate the interest income that would be generated by a ten percent investment over the individual's lifetime employment cycle.

Data Related to Each Question

Question One: What are the similarities, etc. of the various theories supporting the development of this model (that is, how do these various theories "come together" to provide the theoretic/conceptual basis from which to build the alternative curve(s)?

Question One was basically answered as the researcher reviewed and synthesized the literature on adult-life stages and career-work phases of individuals to develop assumptions used to develop the compensation curves. Tables 1 and 2 (pages 35; 36-41) and Figures 1, 2, and 3 (pages 20, 30, 31) show the relationship of the research found in Chapter II.

To expand on the basic research information presented in Chapter II which includes Tables 1 and 2 (pages 35; 36-41) and Figures 1, 2, and 3 (pages 20,30,31), the researcher used five tables to present the model's concepts based on an actual LEA data. Two of the five tables used actual case data based on personnel employed by the LEA.

The adult-life stage compensation model was derived from the research on adult-life stages (Levinson et al., 1978; Sheehy, 1974), work/career developmental stages (Super, 1963; Hall, 1976), and teacher work/career stages (Huberman, 1989; Burke et al., 1984). The theories are

catergorized by general time frames related to the age of individuals (Table 1, page 35) with common descriptors to define the characteristics or time periods through which individuals progress through during their adult-life or work/career (Table 2, pages 36-41).

Researchers (e.g., Levinson et al. and Sheehy) indicate that between the ages of 40 to 45 individuals begin to evaluate their life's effort as it relates to job, family, and other aspects of life. The Levinson et al. and Sheehy research provided the foundations of the theoretical adult-life stage compensation model (Figure 1, page 20).

The adult-life stage compensation model assumes that individuals commit themselves to their work/career first and foremost before analyzing and evaluating the impact their efforts have on the family or other aspects of life. During the early years, persons establish job and family patterns (rapid movement up the corporate ladder; or marriage, beginning a family, or the purchase of a home) that have positive or negative impact on their successes in life. Since productive work provides a means to accomplish individual needs, individuals strive to acquire appropriate wealth as quickly as possible to meet their need patterns. This approach directs individuals to be committed to work early in life in order to acquire the necessary wealth to fulfill their obligations or needs. The focus changes later in life.

The compensation model used in the scenarios incorporates elements of the research of Monk and Jacobson (1985) who suggested that salary needed to be "frontloaded." This allowed individuals to acquire financial assets earlier in their work/careers thereby minimizing indebtedness, fulfilling extrinsic and intrinsic needs, and potentially stabilizing performance levels that could have been unsatisfactory (e.g., individuals might need a second job to meet financial and family obligations and this could detract from their performance on the primary job).

In Tables 1 and 2 (pages 35; 36-41) the researcher synthesized the work of Hall (1976), Huberman (1989) and Burke et al. (1984), Super (1963) who identified and supported similar periods of time for the establishment of relationsips, family, and work/careers patterns during individuals' early work years. During the late 20s and early 30s, individuals were establishing job patterns; in the early to mid-40s individuals were evaluating their work/career patterns and/or life styles in terms of their relationships to life, family, and work. The reviewed research indicates that individuals begin either to slow down, to maintain existing levels of output, or to make rapid-and-severe changes in their adult-life structures at approximately age 40 to 45.

The adult-life stage compensation curve line continues to rise until reaching an apex around age 45. At that point

it maintains a plateau and/or begins a slow descent toward retirement. The curve line from ages 46 to 65 may reflect a person's (1) slowing down of efforts on the job, (2) maintaining existing levels of output, (3) willingness to change job responsibilities, or (4) interest in changing the job itself.

The backside of the curve can be built to reflect an individual's own needs. Scenario One (Appendix B, Table B-1) was developed using a slowing-down approach while Scenario One (Appendix B, Table B-2) used the approach of maintaining existing levels of output or effort on the job by balancing work/career and family.

Appendix B, Tables B-1 and B-2 provide factual data on actual case studies of two administrators for the pilot LEA. The tables show the actual salary history of the individuals from the date of hire through 1990. The person in Case One (Appendix B, Table B-1) started to work for the LEA at the age of 23. The person in Case Two (Appendix B, Table B-2) started to work for the LEA at the age of 22. Both individuals have a base salary of $45,601 in 1990-91.

Appendix B, Tables B-1 and B-2 present similar theoretical data, based on the scenarios used for the table. The data consist of the age of the individual, the projected salary level using the traditional method, and using the salary levels built on various adult-life stage scenarios (salary levels are provided from the date of hire to the age

of retirement). For each scenario, the salaries are totalled to show the compensation that will be paid over the individual's employment cycle.

Each case was developed using a set of assumptions for the traditional and adult-life stage compensation curves. Both adult-life scenarios apply "frontloaded" compensation principles that provide individuals with more disposable income in their earlier stages of life and work/career patterns than would the traditional system. Appendix B, Tables B-1 and B-2 plus Figures 6 and 7 shown on the following pages represent the compensation curves for each scenario.

Question Two: What are the probable impacts on a school district's operating costs if a district uses a compensation system based on career paths and adult-life stage principles in comparision to a district that uses the traditional compensation system based on longevity, step increases, and degrees earned?

Question Two was answered by determining the average age of LEA personnel who were classified as certificated management personnel - administrators (see Table 9 page 100). In the pilot LEA this classification was sub-divided into three groups of personnel. Each sub-group's actual demographic data were determined, for example, by calculating the average age and base salary level for an individual in each sub-group.

FIGURE 6

(Case 1) Projected Traditional vs. Adult-Life Stage Compensation Curves for LEA Administrator

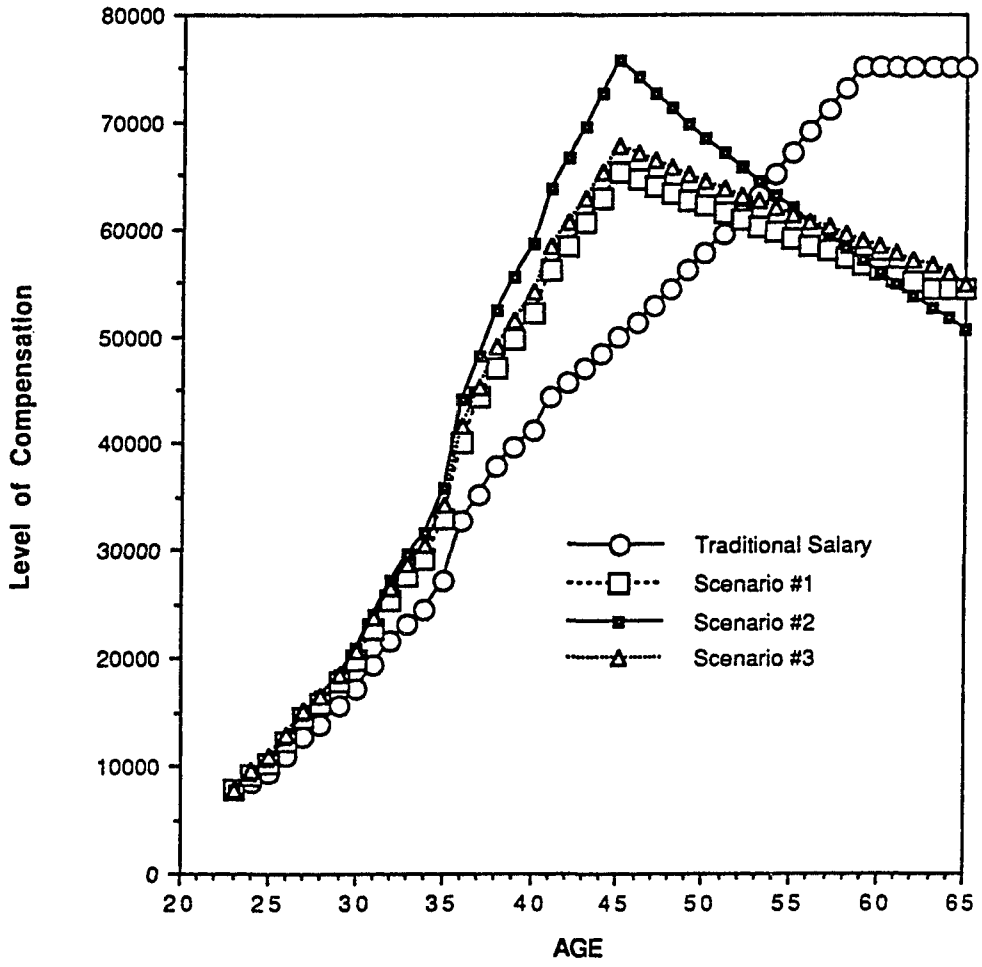
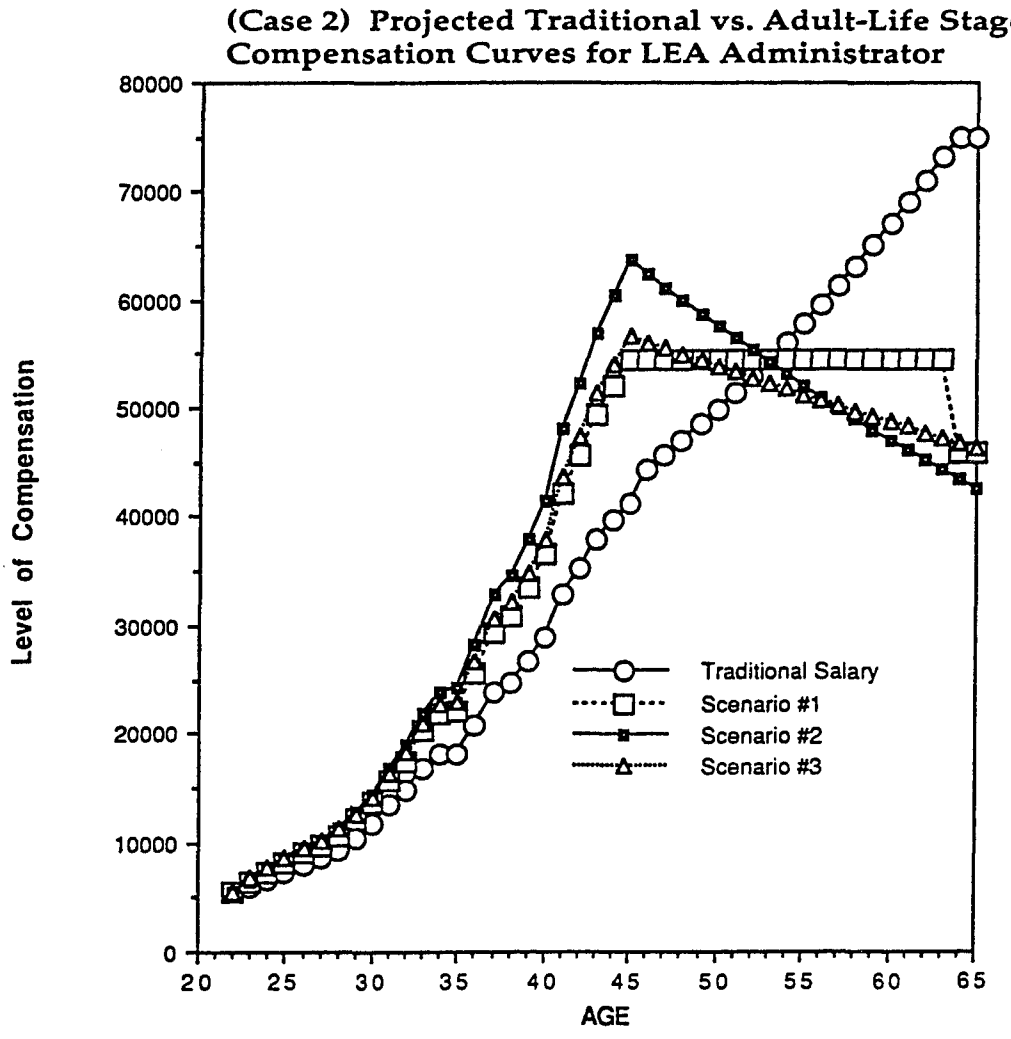


FIGURE 7


(Case 2) Projected Traditional vs. Adult-Life Stage Compensation Curves for LEA Administrator
Level of Compensation
80000
70000
60000
50000
40000
30000
20000
10000
0
20
25
30
35
40
45
50
55
60
65
AGE
Traditional Salary
Scenario #1
Scenario #2
Scenario #3

Appendix B, Tables B-3 through B-5 include data built from scenarios and assumptions used to determine the total compensation paid to any individual with the averaged characteristics of individuals for that sub-group in the participating LEA. The tables provide annual compensation levels paid over an individual's lifetime employment cycle.

Appendix B, Tables B-3 through B-5 and Figures 8 through 10 present adult-life salary levels for the LEA's three sub-groups. Table B-3 provides data for the superintendents and administrators sub-group; Table B-4 reports the data for coordinators and directors; and, Table B-5 depicts the salary levels for site-management personnel. Data in tables include the age of the individual, the year corresponding to the individual's age, the projected salary level from the traditional method (salary levels are provided from the date of hire until retirement), and the salary levels for the adult-life stage scenarios (salary levels are provided from the date of hire to the age of retirement). Salaries are totalled to provide compensation levels that will be paid over the individual's employment cycle.B-5 depicts the salary levels for site-management personnel.

Table 11 summarizes compensation paid to an individual in each sub-group under the traditional and adult-life stage scenarios found on Appendix B, Tables B-3 through B-5. Table 11 also provides the total compensation and the

FIGURE 8
Projected Traditional vs. Adult-Life Stage Compensation Curves for Deputy, Associate or Assistant Superintendents and Administrators

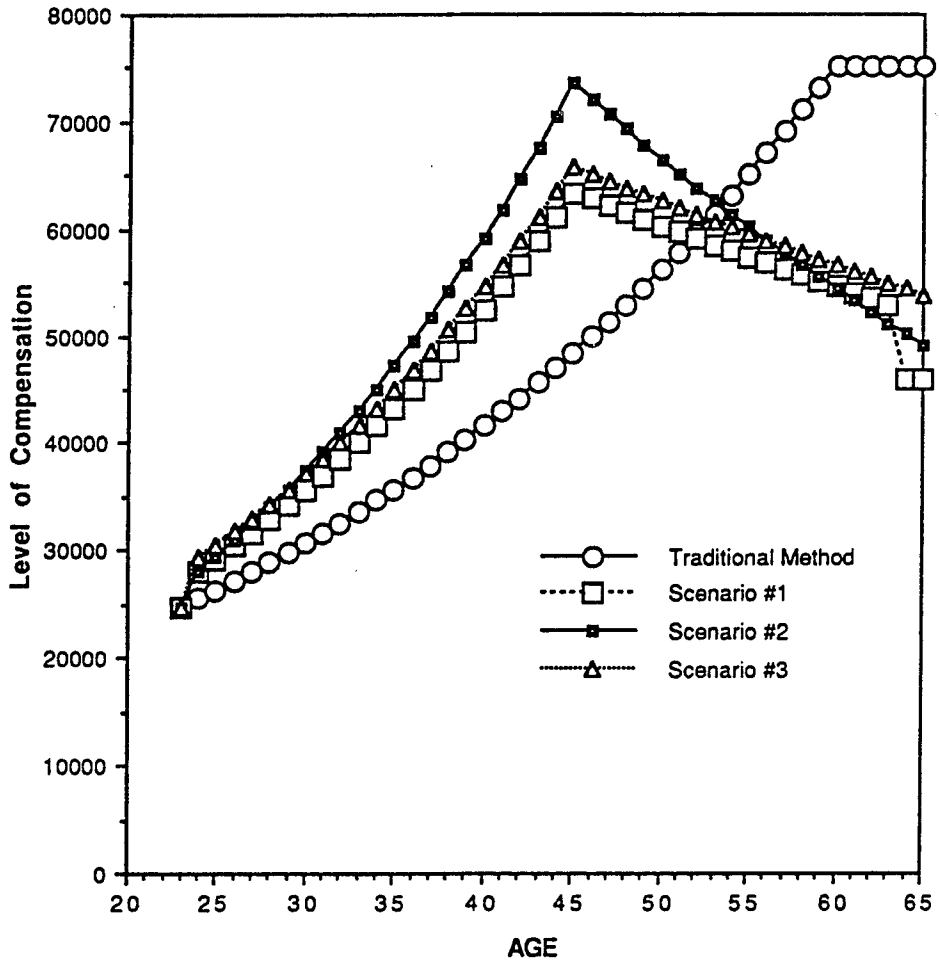


FIGURE 9

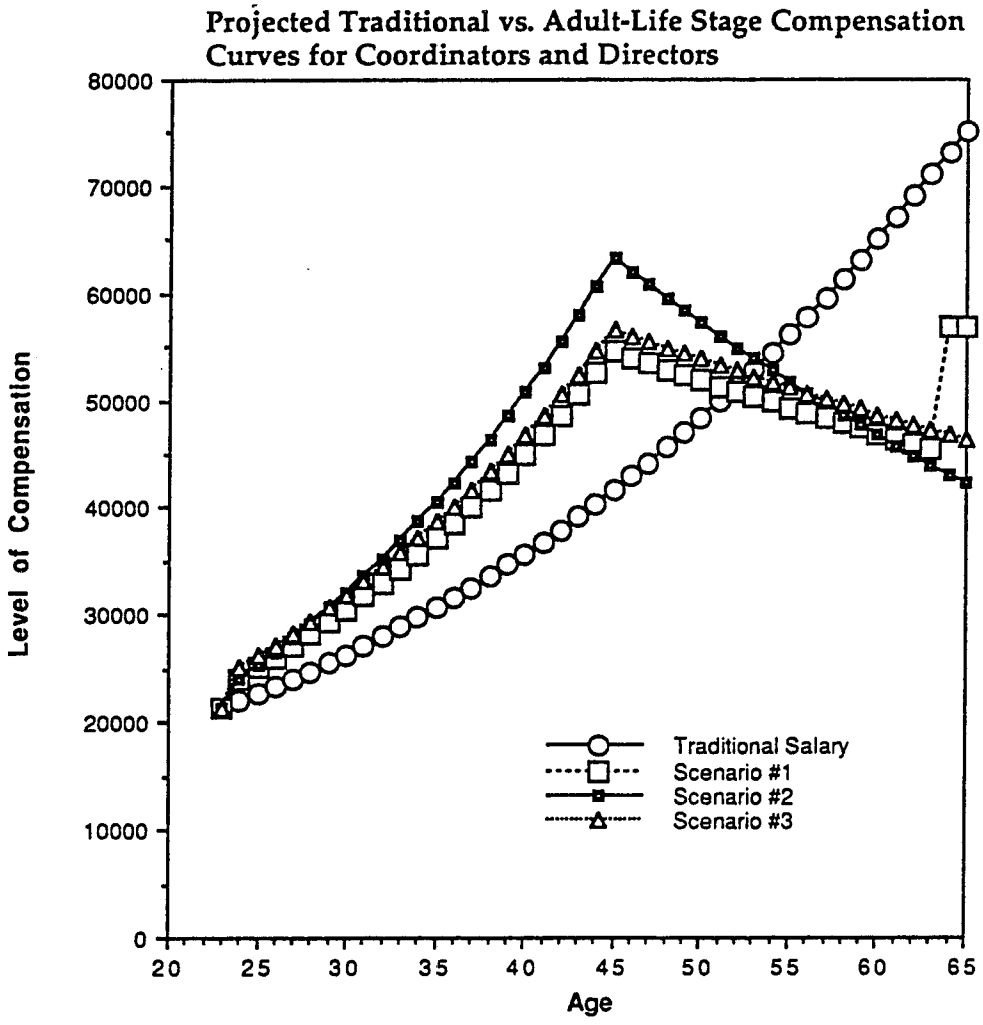
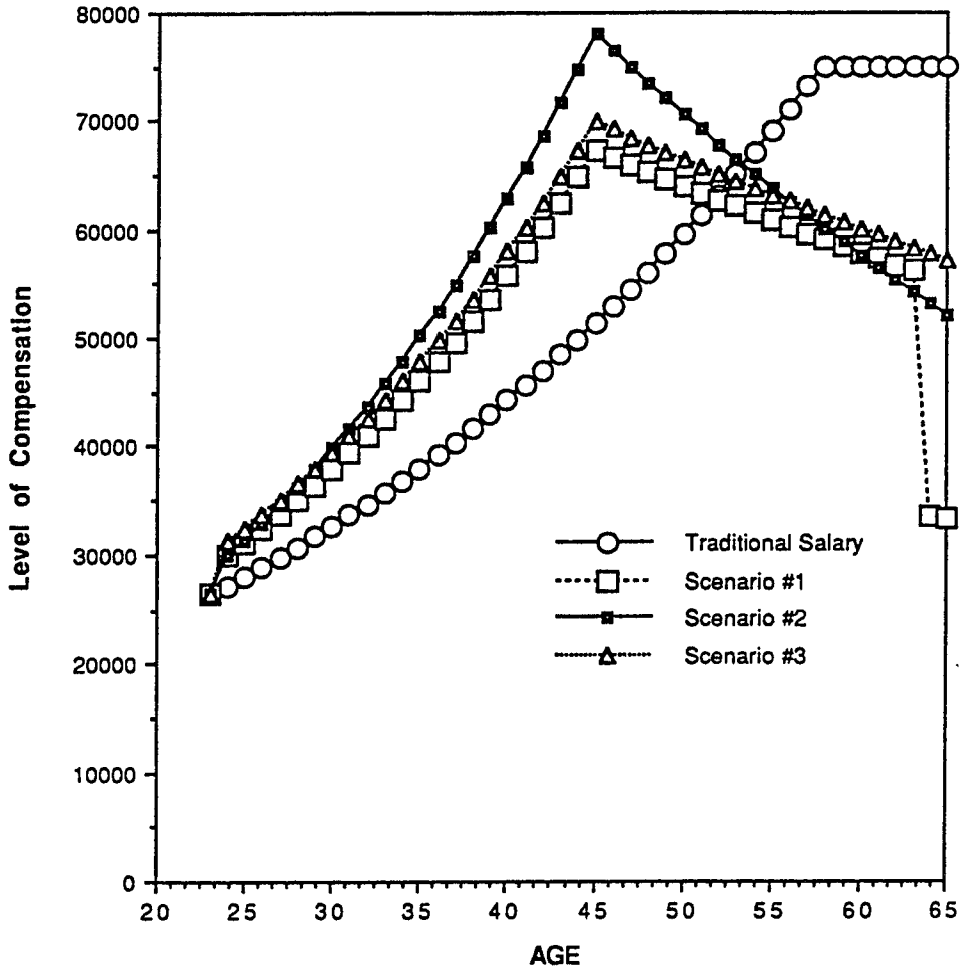

Projected Traditional vs. Adult-Life Stage Compensation Curves for Coordinators and Directors
Level of Compensation
80000
70000
60000
50000
40000
30000
20000
10000
0
20
25
30
35
40
45
50
55
60
65
Age
Traditional Salary
Scenario #1
Scenario #2
Scenario #3

FIGURE 10

Projected Traditional vs. Adult-Life Stage Compensation Curves for Site-Management Personnel



calculated differences under each scenario. Differences in costs between the traditional method and each of the three scenarios are presented.

Total compensation package (Table 11) for 66 administrators under the traditional method was $141,153,640 over a 42-year employment cycle. Life-stage Scenario One, Table 11, shows the total compensation package for administrators as identical to the traditional method. The LEA would be required to fund higher compensation levels during the period from ages 23 to 52 based on the adult-life assumptions of Scenario One. From ages 53 to 65 fewer dollars would be needed to meet the school district's obligations using the adult-life stage method (payroll and benefit costs). Complete data for these statements are presented in Appendix B, Tables B-3 through B-5 and graphically shown on Figures 8 through 10 (pages 120-122).

Scenario Two (Table 11) would cost the LEA an additional $11,696,576 over the 42-year period for 66 people. This is an increase of 8.3 percent over the traditional method shown in Scenario One method. Total compensation for administrators group under this scenario was $152,851,216. The LEA leadership could choose to fund the payroll obligation each year as it is incurred or amortize the cost over a 42-year period with equal installments of $278,490 or some combination amounts that

TABLE 11

TOTAL COST OF COMPENSATION FOR ADMINISTRATORS
OF A LOCAL EDUCATION AGENCY (LEA)

SUB-GROUP CLASSIFICATION	NUMBER OF PERSONNEL	TRADITIONAL METHOD		SCENARIO #1		SCENARIO #2		SCENARIO #3	
		INDIVIDUAL	TOTAL	INDIVIDUAL	TOTAL	INDIVIDUAL	TOTAL	INDIVIDUAL	TOTAL
Deputy, Associate, or Assistant Superintendent & Administrators	14	$2,114,801	$29,607,214	$2,114,801	$29,607,214	$2,274,794	$31,847,116	$2,210,402	$30,945,628
Coordinators & Directors	10	$1,853,247	$18,532,470	$1,853,247	$18,532,470	$1,955,621	$19,556,210	$1,899,519	$18,995,190
Site-Management Personnel	42	$2,214,618	$93,013,956	$2,214,618	$93,013,956	$2,415,426	$101,447,892	$2,346,562	$98,555,604
Total Compensation to be Paid over Employment Cycle			$141,153,640		$141,153,640		$152,851,218		$148,496,422
Difference in Compensation Level Between Traditional Method and EachScenario					-0-		$11,697,578		$7,342,782

would provide for the total cost difference. Increases would occur from approximately ages 23 through 52 or 53 before adult-life stage compensation costs would decline. An amortized equal-payment plan would require the district to have reserves available or be able to generate additional dollars through state aid (taxation[2]), grants, special assessments, etc. to meet the difference between the amortized amount and the actual cost of the adult-life stage method.

Scenario Three (Table 11, page 124) would cost the school district an additional $7,342,762 over the 42-year period for the 66 administrators. Total compensation for administrators under this scenario was $148,496,422, or an increase of 5.2 percent over the traditional and Scenario One methods. The average amortized amount would be $174,828 per year.

In each scenario the largest compensation costs are incurred by the site-management sub-group (n=42) while the coordinators and directors sub-group (n=10) requires the fewest dollars over the employment cycle. The site-management sub-group incurs $ 8.4 million (Scenario Two) and

---

[2] The LEA receives from the state over 90 percent of its per student funding. To fund an additional $175,000 dollars for salaries (amortized portion from Scenario Three, Table 11) would require a tax rate increase of .00004375 be added to the current state assessment. This assessment would provide each LEA in the state with an equal amount ($175,000) if the tax assessment were implemented. (Correspondence with LEA fiscal department).

$ 5.5 million (Scenario Three) more in compensation, while the coordinators and directors costs are $ 1.0 million and $ .45 million respectively over the employment cycle. The annual approximate differences for site-management personnel would be $200,000 (Scenario Two) and $131,000 (Scenario Three), while for coordinators and directors differences would be $100,000 and $45,000 respectively. Differences between and among the three scenarios are the result of the average age of sub-group individuals (see Appendix B, Tables B-3 through B-5), the longer the individual has to work beyond the average age, and being remunerated at the high end of the compensation scale for a longer period of time.

The impact on a school district's operating costs using the adult-life compensation model as in Scenarios Two and Three resulted in increased revenue requirements because of increased expenses needed to fund salary levels from ages 23 through 53 under the adult-life scenarios. As indicated, each adult-life stage scenario requires more dollars during the first 30 years of employment for compensation than does the traditional method. Thereafter, the dollar amounts in the adult-life scenarios are reduced until retirement.

A zero-based budgeting approach (any costs incurred will be paid for from current year's revenue) would require the school district using the adult-life scenarios to generate increasing amounts of dollars each year (until an employee reaches age 45) over the traditional method. From

age 46 to 52 or 53 the total amount for this adult-life stage scenarios would begin to decrease but would still be larger than the traditional method costs. From ages 53 to retirement (age 65) the traditional method costs would exceed the adult-life stage method costs.

School districts could amortize the differences in total compensation under the various scenarios over the actual 42-year employment period. By funding the amortized portion each year, the school district could build a fiscal reserve in the early years. This would occur when the amortized dollar amounts are larger than the dollar amount required under the traditional method for a particular year. For example, (Scenario Two, Appendix B, Tables B-3 through B-5), the three sub-groups at age 25 would require $171,862 in additional dollars to fund the compensation package under the adult-life stage method. The amortized amount for the year would be $278,490. The amortized amount incorporated into the budget would provide the school district with a reserve of $106,628 ($278,490 minus $171,862) for future use. At age 26, the actual dollars needed by the school district would be $212,604. The amortized amount would be $278,490. The difference of $65,886 could be added to the reserve fund to offset compensation level deficits in subsequent years (deficts occur when the actual dollar amounts exceed the amortized portion). The deficits start approximately at the fourth year and continue through the

30th year (age 52). At this point where traditional and adult-life stage curves intersect the actual dollars (adult-life stage method) begin to decrease as the individual approaches retirement.

In direct response to question two: There would be no additional total costs incurred by the LEA for scenario one, but the costs for the adult-life stage model would occur in amounts differing from the traditional method depending upon the years. For scenarios two and three the adult-life stage costs would be more than for the traditional model by approximately eight point three percent and five point two percent respectively. These differences were built into the system due to higher starting salaries used in scenarios two and three.

Question Three: How would a compensation system look that is designed to parallel career paths and adult-life stages of school administrators?

The design of the compensation system was based on the adult-life stage research of Levinson et al. (1978), Sheehy (1974), and other researchers. Each salary schedule (scenario) begins at the same point on the base salary schedule for the first year of employment. From the second year of employment and until individuals reach retirement (the assumption is that individuals will continue their employment until they reach retirement age), will result in a compensation curve that is either above or below the traditional curve at a given point in time.

Adult-life stage compensation curves will continue to rise above the traditional method compensation curve until the person reaches approximately age 45. At that point, the adult-life stage compensation curves have reached their highest point (apex) based on performance and salary. Beginning with the next year (age 46) and for the next six or seven years the adult-life stage compensation will remain constant or begin a slow descent (depending on the assumptions used). The adult-life stage curves remain above the traditional compensation method curve until the person reaches approximately age 52 or 53. At that time, the traditional compensation method curve is rising will intersect with the adult-life stage compensation curves that are descending and will continue its upward movement away from the adult-life stage curve. The continued escalation of the traditional compensation method curve reflects the current philosophy that individuals should be paid for longevity and (implies) that they are more productive, have greater value to the organization, and have stronger commitment to the organization even as the adult-life stage literature suggests otherwise. On the other hand, adult-life stage compensation curves can reflect a restructing of the job to meet the needs of individuals by allowing for the balancing of effort and commitment to the job in relationship to family and life, or the reduced work, and/or

normal decline in productivity often associated with longevity.

Figures 1 (page 20) and 5 (page 80) provide a conceptual view of the traditional and adult-life stage compensation curves. Figures 8 through 10, pages 120-122 project compensation based on averaged data for a sample of LEA administrators, while Figures 6 and 7, pages 117-118 present actual compensation curves for two current administrators of the LEA.

The characteristics of a adult-life stage compensation system are: (1) entry-level salary is the same as the entry-level salary for the traditional system; (2) beginning with the second year of employment and continuing on until age 52 or 53, the adult-life stage curve would be a certain percentage or dollars higher than the traditional salary level; (3) at the age of 52 or 53 both systems would provide approximately the same salary level; (4) traditional system salary levels would continue to increase each year until retirement; and (5) the adult-life stage salary levels would slowly descend level off or depending on the scenarios or assumptions being used.

Question Four: What are the financial differences between the proposed compensation system and the traditional compensation system of a school district? For example, are the total dollars expended over the employment cycle of an administrator substantially different because of the differing compensation curves? What is the difference?

Differences in total compensation paid to individuals over their employment cycles depend on the assumptions used to develop the adult-life stage and traditional compensation curves. School district personnel may want to pay individuals the same dollar levels of compensation over their employment cycles but offer a choice of traditional or adult-life procedures. This can be accomplished by using the adult-life stage compensation method as described in Scenario One and in Appendix B, Tables B-1 through B-5.

Appendix B, Table B-3 and Figure 8 (page 120) depict compensation level projections for deputy, associate, or assistant superintendents and administrators for the LEA. The first step was to determine the average age (43 years) and current base salary level ($45,601) for members of this sub-group. Using the assumptions established for this sub-group, four compensation curves were developed and calculated: the traditional compensation curve provided a basis for comparisons with the three adult-life stage scenarios (Appendix B, Table B-3 shows the actual calculations and assumptions used). Table 11, page 124 displays the individual compensation levels and total compensation paid to this sub-group using the scenarios.

Compensation totals were calculated by multiplying an individual's total by the number of individuals in the sub-group (n=14). Each scenario provides individual totals that

were then multiplied by 14 to determine the group total cost(s) using the scenarios (Table 11, page 124).

Differences between the traditional and the adult-life stage methods were determined by subtracting the adult-life stage scenario total from the total of the traditional method. (Example: Table 11, page 124, [Traditional Method Total ($141,153,640) minus Adult-Life Stage Method ($141,153,640] equals $ 0).

Appendix B, Table B-4 and Figure 9 (page 121) present compensation projections for LEA coordinators and directors for the LEA. For this sub-group (n=10) the average age was 48 and the base salary was $45,601. Four scenarios were calculated: (1) one traditional and (2) three adult-life stage curves. Appendix B, Table B-4 shows actual calculations and assumptions used in developing the table. Table 11, page 124 shows that the individual and sub-group compensation totals for coordinators and directors.

Differences were determined by subtracting an individuals adult-life stage scenario total from the traditional method total. Individual compensation total was multiplied by 10 to calculate the total compensation level for the sub-group.

Appendix B, Table B-5 and Figure 10 (page 117) display compensation projections for the LEA's site-management personnel. Using the same procedures previously described for Appendix B, Tables B-3 and B-4 school district personnel

could calculate the total compensation paid over the employment cycle for the sub-group (42 people) using the traditional or adult-life stage compensation scenarios.

Compensation differences for the three sub-groups over the employment cycle are presented on Table 11, page 124. The differences are: Scenario One ($ 0), Scenario Two ($11,697,578), and Scenario Three ($7,342,782).

Question 5: What, theoretically, is the potential of the career path/adult-life stage compensation model to impact recruitment, retention, and performance (productivity) of administrators over the work/career path?

If the projections of Shanker (1988) and Goldstein (1986) are accurate, then education will be faced with a labor shortage during this decade and into the next century because of turn over, terminations, retirements, and other reasons why teachers and administrators leave education. With these projections in mind, Johnson's (1987) research on school administrators' willingness to leave education completely or to return to the classroom provides support for the need to develop rewards that help recruit, retain, reward, and motivate personnel. Currently only six percent of entering college students are opting for careers in education. With education facing severe shortages in the administrative and teaching ranks, school system leaders may find it increasingly difficult to recruit qualified personnel.

Highly skilled teachers and administrators will have more opportunities to seek alternative employment than will other educators not so skilled. With entry-level salaries below the salaries found in the general marketplace or paid to persons for related skill areas or jobs, inexperienced (first or second-year) teachers with bachelors or even masters degrees and administrators with masters, specialist or doctoral degrees will try to maximize their initial earnings. This will be especially true when individuals try to offset earnings that were foregone as they pursued advanced degrees.

The adult-life stage compensation model helps individuals to recapture dollars spent for education with the potential for additional disposable income. Individuals would receive higher salaries in the earlier years of employment when they need additional dollars to meet normal adult-life and financial obligations.

Henry (1986) pointed out that 60 percent of all teachers left education after five years of employment. Lortie (1975) contended that pay was a major contributor to the exodus of personnel from education. Goodlad (1985) supported Lortie's research that pay was one of the major contributors why individuals left education. Tischer and Ernest's (1989) research on the affects of second and third jobs being held by educators supported the compensation issue and suggested that the present system was inadequate

to meet individual's needs. School districts that improve entry-level salaries during the early years of individuals' careers can expect to recruit better qualified personnel from the talent pool and retain them for longer periods of time than districts with less beneficial salary packages.

If Henry's research is valid, then higher beginning salaries may help education retain a larger portion of those who might normally leave education. Increased compensation allows individuals to satisfy their extrinsic and intrinsic needs by providing them with additional disposable income to meet their individual life needs. With salaries increasing above the traditional methods until age 45 and not intersecting with the traditional method until age 52 or 53 in most cases, the adult-life stage compensation method could contribute to satisfying individuals' extrinsic and/or intrinsic needs.

Sizer (1984) stated that society measured respect in three main ways: autonomy, money, and recognition. Teachers and administrators have almost complete autonomy while on the job. The adult-life stage compensation system would reward teachers and administrators with salary levels that approach those in other like professions (e.g., health services). If the customer, taxpayer, or society is willing to adopt and support a reward system that brings education into the competitive marketplace, then society will have

recognized in one way education's contributions, according to Sizer.

Depending on individuals, performance levels (productivity) may or may not increase continuously during their employment cycle. Individuals respond differently according to the rewards being offered at that time, a concept referred to often as "valence." Research suggests that individuals respond positively to a reward system that allows them to manage the system.

Adult-life stage compensation attempts to meet the needs of individuals in their early adulthood period (17-40 years of age) as they relate to job, family, etc. By providing individuals with compensation levels that recognize their worth, the organization (school) and society help individuals with important costs, such as a home or car or the beginning of a family without incurring debts that may place individuals under undue pressures and hardships.

As individuals progress through their adult-life stages, changes occur in job, family, or life that require shifts in how individuals allot their time and efforts to meet their obligations. A reward system that can accomodate these changes can provide individuals with positive motivation to perform at levels above the norm. Individuals who participate in the management of their reward system are more willing to consider the use of alternative reward systems as a viable method of meeting their life patterns.

Higher salary levels have potential to attract individuals to education. The potential labor market for college students will expand from those who considered or were planning on a career in education, to other students in other related subject matter areas. The adult-life stage compensation system provide persons a competitive salary and the opportunity to increase compensation rapidly early on in their careers while enjoying the other benefits of education as a career.

Higher salary levels will be attractive to individuals seeking to change career tracks. Although salary may not be the primary consideration for individuals at age 45, it may be of importance to individuals who are seeking to change careers (professions). An example would be individuals in business seeking a career change to education.

The impact of the adult-life stage compensation system on retention would be that individuals see the system as providing them with compensation levels that meet their needs. Associated with this situation is the ability of the adult-life stage system to be flexible enough to react to changes in life structure patterns. The ability to be flexible will create "stability" or "holding power." Excellent salaries that are provided when individuals need them could create a positive effect by reducing or removing a person's willingness to seek other employment opportunities.

The issue of performance (productivity) levels is addressed by the "frontloading" of the system to reward individuals for their efforts in the early and middle years of employment when they are most productive. The traditional method recognizes longevity and not performance.

The availability of additional disposable income for discretionary spending and supplementary investing could be preceived as a major consideration for staying in education. The following paragraphs provide a description of two actual cases involving administrators of the LEA.

Appendix B, Tables B-6 and B-7 depict alternative investment approaches for the same LEA administrators used previously as Case One and Two. In these alternative hypothetical investment programs, the principal and interest income could supplement the administrator's retirement program. Each table provides the age (date of hire to the age of retirement), the annual salary under the traditional method (actual and projected salaries), amount of annual traditional method salary invested (10 percent each year), amount invested plus six percent interest earned annually on the balance from the previous year, annual salary using Scenario One of the adult-life stage method from Appendix B, Tables B-1 and B-2, amount of adult-life stage salary invested (10 percent each year), and the amount invested plus six percent interest earned annually on the balance from the previous year.

Case One (Appendix B, Table B-6) investment patterns under the traditional method generated $604,938 over the 42-year employment cycle, while the adult-life stage method generated $666,449. The adult-life compensation method would provide the individual with $61,511 more dollars over the employment period. Also, the individual had available additional disposable income resulting from the "frontloading" of the compensation system in the early employment years. These additional revenues, if used carefully, could reduce indebtedness and alleviate the need for the individual to seek a second job or borrow money to meet family obligations.

Case Two (Appendix B, Table B-7) investment patterns utilizing the traditional compensation method generated $481,944 over the employment cycle, while the adult-life stage compensation method generated $531,131. This adult-life stage compensation method provided $49,187 additional dollars for the individual during his/her employment career. The individual would have additional disposable income available because the compensation system was "frontloaded" during the early employment years. An example (Appendix B, Table B-3) of additional disposable income would be an individual at age 42 who receives an additional $12,768 (difference between the adult-life stage salary and the traditional salary) in annual salary under the adult-life stage compensation method for the year. If 10 percent

investment ($5,837) from adult-life stage salary level ($58,369) is subtracted from the additional income available under the adult-life stage method ($12,768), individuals would have $6,931 more in disposable income to use and meet their obligations and needs during the year.

Chapter four has provided the data and analysis for comparing compensation for educational administrators using a traditional model and the adult-life model. Chapter five includes a summary, discussion and ideas for additional research.

CHAPTER V

SUMMARY AND FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND DISCUSSION

This chapter presents a summary of the study findings, conclusions based on the data from the theoretical compensation model, recommendations for future research in reward systems and other related issues based on the adult-life stage reward systems, and some discussion of related ideas. The chapter is organized into four sections. The first section explains the purposes of the study and offers a summary of study findings. Another section includes conclusions based on data analyses, literature, and prior research and emerging trends. The third section provides some recommendations for future research on alternative reward and compensation systems based on adult-life stages for education. Finally, in the last section the researcher discusses and elaborates on findings and questions and concerns that arose during the study.

Purpose of the Study and Major Findings

During the last decade, the public education system has experienced considerable change. Among problems cited by various researchers and critics were the quality and quantity of teachers and administrators available to make and implement changes needed in education. Facing severe

projected shortages in labor at both the teaching and the administration levels, education leaders have discussed and undertaken various reforms and/or programs. Current reforms however, have done little to improve the reward system offered to individuals in education. Research has shown that the usual reward systems generally do not contribute to the recruitment and/or retention of personnel in education (Johns, 1988; Johnson, 1987; and Shanker, 1988).

Current reward systems favor veteran teachers over new teachers or veteran administrators over new administrators. These systems are indexed to degree attainment and longevity, but may not reward performance levels or contribute to the administrators' "life structure" needs or patterns. The present system forces many new personnel to seek additional or higher educational credentials, encourages individuals to enter the job market for outside work (moonlighting), or forces them to make career changes.

The purpose of the study was to develop hypothetical and alternative methods and/or scenarios for a compensation system based on the principles of adult-life stages and work/career developmental phases that are applicable to a reward system for school administrators. The adult-life compensation models were pilot tested using the salary base and financial structure of an actual school district.

Findings of the Study

Question One asked if existing research was available to be used in the development of a adult-life stage compensation model. Research of Levinson et al. (1978) and Sheehy (1974) was used as the foundation for the development of the adult-life stage compensation curve. Research of Super (1963) and Hall (1976) on work/career patterns and research of Huberman (1989) and Burke et al. (1984) which identified work/career patterns of educational personnel coincided with and supported the research of Levinson et al. and Sheehy (see Tables 1 and 2, pages 35; 36-41).

The research and theories of Levinson, Sheehy, Super, Hall, Huberman and Burke all provide corresponding age periods and behavioral characteristics of individuals as they relate to job, family, or life (Tables 1 and 2, pages 35; 36-41). Although the researchers' emphases were directed at specific areas, the research of Super was focused on the phases of work and the concurrent behaviors. His research did identify corresponding time frames (Table 1, page 35) that supported the underlying assumptions from Levinson, et al. used in the development of the adult-life stage compensation curve. Existing research was available and was used to develop the basis for alternative compensation structures built on adult-life stage concepts. As expected, the theoretic curve resulting from systhesizing

these areas of research was not identical to the traditional compensation curve used in education.

Question Two asked what financial consequences would occur in the adult-life stage compensation model if it were adopted by a school district. As shown in Chapter IV, the amount of dollars spent annually or over the lifetime employment cycle of an individual or sub-group of individuals depends on the scenarios used to implement the compensation system. Total compensation costs for a school district were determined yearly and over the employment cycle of the individual. The employment cycle of an individual starts with the date of hire and continues until retirement.

The theoretical model showed that adult-life stage compensation systems could be designed that reward individuals with compensation levels that are above traditional methods in the early adult-life stages while over the lifetime employment cycles would cost the same (Scenario One). Additional approaches (Scenarios Two and Three) started with slightly higher beginning pay levels and provided higher levels of compensation on an annually and lifetime basis. These two approaches generated approximately $160,000 and $95,000 additional disposable income respectively over an individual's 42-year employment cycle (Table 11, page 124).

The total cost of the adult-life stage compensation model (Scenarios Two and Three) over the lifetime employment cycles of the local education agency (LEA's) administrators was approximately $11.7 million (Scenario Two) and $7.3 million dollars (Scenario Three) for 66 people (Table 11). Depending on the assumptions used to develop the scenario(s), the school district would experience increased costs over the first 30 years of emplomentof the individual or sub-group of individuals.

Question Three was answered by using the research-identified concepts developed in Question One. In building the adult-life stage compensation model for Scenario One each curve started with the same point in the time (date of hire) and the same base salary level. (Numerical data are in Appendix B, Table B-3 to B-5. The adult-life stage compensation curve begins to rise above the traditional compensation curve in the second year and continues its ascent until it reaches a peak (highest salary level available) when the person is about 45 years of age. At that time the adult-life compensation curve levels off and/or begins a slow descent until the person reaches age 52 or 53 when it intersects with the traditional compensation curve. The adult-life stage compensation curve would continue its horizontal movement or descent until the person reaches retirement age.

Based on the researched descriptions of a person's demonstrated work behaviors (Table 2, pages 36-41) the adult-life curve move upward and away from the traditional curve because of the assumptions used. The assumptions include increased commitment to employment opportunities, higher performance levels in the earlier work career phases, and the need for additional compensation to meet family and/or individual life needs.

When the adult-life stage compensation curve reaches its apex, it reflects individuals' commitments and assessments of their efforts as they relate to or affect their relationships with family, job, and other individuals. Once the assessment is completed, individuals may or may not restructure their work patterns. If restructuring does occur as expected based on research, the compensation curve may level off or begin a slow descent to reflect the direction of work effort pursued by individuals as they progress to retirement.

The traditional compensation curve which begins at the lowest point and continues to increase over the entire employment cycle of individuals is based on different assumptions. The underlying assumption of this method is that as an individuals' salary level increases there is an offsetting and increasing level of performance. That is, individuals continue to improve in performance and value in a linear fashion throughout their careers.

Question Four was answered by providing a financial data forecast based on the toal cost of salaries for a group of administrators in a local education agency (LEA) that served as a base for a pilot of the theoretic curves. Appendix B, Tables B-3 through B-5 show factual information about the total compensation to be paid by the pilot-site LEA using the traditional (existing compensation system) and also using the three adult-life stage scenarios. The compensation totals of the traditional method were compared against the compensation totals of the three adult-life stage methods to establish the dollar differences in each method. Table 11 (page 124) provides a summary display of the information.

Question Five addresses the impact that a theoretical adult-life stage compensation model would theoretically have on the recruitment, retention, and performance levels of administrators who select the adult-life stage approach to compensation. The question addressed both the extrinsic and intrinsic benefits derived from a reward system developed primarily to benefit people by paralleling their life and career patterns.

The compensation levels provided by the adult-life stage method should enhance the LEAs ability to recruit personnel from the educational field as well as, from industry or other sectors of the economy. Higher salaries in the early and middle years of employment should be very

attractive to personnel entering the world-of-work. Competitive salary structures will allow LEA personnel to recruit potentially better qualified personnel.

The adult-life stage compensation system will help LEAs stabilize their workforce by providing salaries that are competitive in the marketplace. The availability of additional disposable income from the adult-life stage method provides individuals with discretionary income and monies for investment or savings opportunities.

Appendix B, Tables B-6 and B-7 provide data on two actual LEA administrators who theoretically invested 10 percent of their adult-life salary. This investment earned six percent interest annum. The investment could provide the administrators with a supplementary retirement program (would act as a forced saving program) that would generate approximately $470,000 and $365,000 respectfully over their employment cycles. Comparing the adult-life stage investment patterns against traditional investment patterns using the same assumptions would result in $61,511 and $49,187 more dollars respectively for the adult-life scenarios.

Conclusions

Substantial research and theory support a reward system based on adult-life stages and/or work and career phases. A compensation model can be designed that meets "life structure" patterns of individuals or other related criteria.

Adult-life stage compensation levels that are developed and paid annually over the lifetime of individuals can benefit both individuals and the employing organizations. Salaries paid in the early developmental and high-productivity years would be highly competitive in the marketplace with compensation levels of other types of businesses that compete for similar resources, thereby providing a potentially better labor force for education. Salaries paid to individuals under the adult-life stage compensation system allow them to provide for their own need patterns more effectively and efficiently than under the traditional system. With the availability of additional disposable income for their use when they most need it, individuals could invest a portion of the additional salary and reduce debt levels or improve retirement income (Table 7 [pages 91-93]; Appendix B, Tables B-6 and B-7 provide hypothetical investments patterns).

The total cost of the adult-life stage compensation system over a person's 42-year employment cycle may be feasible under various scenarios and sets of assumptions. If school district leaders look at the costs only on a year-to-year basis, the dollar amounts may seem prohibitive. How a district proposes to provide funding for adult-life stage compensation system salary expenditures may have a direct bearing on a school board's acceptance of this model.

The adult-life stage compensation system provides renumeration to employees during their most productive periods at salary levels that recognize their contributions to the school. This system reinforces superior performance levels with salary levels that are competitive with related professions.

Higher competitive salaries allow organization leaders to plan staffing levels more realistically. School district leaders can expect the turn over or mobility of their workforce to begin to stabilize because of better salary levels.

Performance levels should improve because individuals will not be forced to seek additional employment in order to satisfy adult-life stage patterns. Also, pay structures should help individuals believe that they are being compensated fairly and equitably for their work. The customer should benefit directly by having individuals concentrating strictly on their primary duties and tasks--that is, focusing on education and not "moonlighting."

Although the costs in some years will be more under the adult-life stage method than under the traditional method, the funding increases in earlier years for any one individual or sub-group of individuals will be decreased in later years as the curve flattens or decreases towards retirement. A second factor is the economic theory of opportunity cost of money--the system requires fewer dollars

today than will be required in the future. The cost of the dollar today is cheaper to the taxpayer, than the cost of the dollar in the future because of inflationary effects on the dollar.

If the adult-life stage compensation system will improve retention of personnel (one reasonable conclusion from the study), the school district may begin to realize savings in recruiting and staff development costs. These costs could be both direct (e.g., advertising, travel) and indirect (e.g., labor's time loss from performing primary duties). Reduced staff turn over would free administrators to work on other activities than personnel recruitment/ training.

Life-stage research and theory support (and the researcher believes) that certain LEA personnel would be willing to accept nonmonetary rewards for work performed that is beneficial to the LEA. This concept can become part of individual's total reward package when the people reach their mid-40s and begin to evaluate their life's work.

Reward systems that allow individuals to participate actively in their career planning provide individuals the opportunities to plan for their futures now. Affordable reward systems can be designed to allow individuals to enjoy their rewards, not have to endure them.

Performance and/or productivity levels should rise. This conclusion builds on research of Herzberg (1966), Deci

(1975), and Bandura (1976) who stated that external incentives can contribute to increased performance levels. In a 42-year employment cycle (age 23 through 65 or normal retirement), it is possible that individuals will be more productive in the early years of the cycle than they are in the later years of the cycle. Other research and theory suggest that a worker's performance, effort, and commitment levels peak in the mid-40s, level off for 10-12 years and then begin declining (Levinson et al., 1978; Sheehy, 1974). While the adult-life stage compensation system may be rewarding individuals with slightly higher salary levels, it would be positively reinforcing performance and commitment levels when they are highest (about ages 25 through 50 or so).

The opposite is true of the traditional system which pays moderate salary levels in the early years when theory suggests that workers are at peak performance and then continues to rise as people begin to seek other interests. This model has potential to create dissatisfaction with individuals who expect to be rewarded for their efforts. As individuals get older and (theoretically) less productive, the traditional system provides larger (dollar amount) salary levels. The adult-life stage compensation model is designed to pay for performance in productive periods and to adjust for changes or commitment levels that individuals make in their lives.

Recommendations for Future Research

Future research needs to concentrate on programs and systems that contribute to improving education. Businesses project that organizations of the next century will be leaner and more flexible so they can compete in the marketplace. This concept is true for education, also.

Additional research needs to be conducted on why students are not selecting education as a career profession. In assessing their attitudes and values (e.g., choosing education as a career; or why teachers and administrators leave teaching), researchers need to identify what value systems and attitudes are applied by individuals entering or not entering education.

Any changes that occur resulting from this research study on alternative reward systems (compensation) would need to be evaluated over a extended period of time. The concepts proposed do not allow for decisions to be made about their effectiveness in a short period of time.

Research will need be initiated simultaneously in other areas of the reward system (e.g., retirement, insurance). Alternative benefit programs will need to be developed that either coincide with adult-life stage compensation system or the development of non-traditional approaches to these benefits. Researchers should project costs associated with the development of the various scenarios. Programs such as annuities and alternative retirement and investment programs

could be developed to parallel or supplement existing programs. These programs could be developed to allow a LEA to design a method(s) for ensuring retention of qualified personnel.

Other areas of research that should be considered in studying the concept of alternative pay/reward systems are:

1. Will teachers and administrators opt to use alternative rewards systems that provide them with flexibility, choice, and responsibility to manage their own financial futures?
2. What rewards will attract teachers and administrators to consider education? What rewards need to be included in a adult-life stage reward system?
3. What types of procedures, policies, methods, systems, or assurances will be needed by school district leaders before they will consider alternative reward system (e.g., what plans will need to be developed <u>before</u> the traditional compensation system can be changed)?
4. What type of administrative system will need to be developed to protect teachers and adminstrators or the school district when using a alternative reward system?

5. What effect will the adult-life stage reward system have on the quality of education being provided to customer (e.g., students, parents, and taxpayers)
6. What performance measures (outcome-based) will be reasonable to help the administration tie pay-for-performance (theoretically an underlying part of adult-life stage compensation) into the actual system used in a district?

Discussion

With education facing projected shortages in personnel, increased compensation levels in the early phases of one's career should attract more qualified individuals into the educational field. Salaries that are higher and more competitive with the marketplace allow school district leaders to recruit with and against other career fields and organizations that attract similar types of individuals. "Frontloading" an adult-life stage compensation system would project potential earning levels that are equal to or above earnings that could be expected in other related types of business.

School districts while experiencing some increased operation costs from using the adult-life stage model should benefit from increased performance levels, stability of the workforce (adult-life stage compensation model would act as a "holding or retention" mechanism for the school district,

since the employee's salary would be highly competitive with alternative employment opportunities).

Retention should be a by-product of the adult-life stage compensation system since this system can provide for better compensation levels and rewards; pay approximates need and output and "frontloading" provides funds when individuals most need them. This "holding power" will allow school district leaders to stabilize the workforce.

The "holding power" concept has potential to create a negative side effect in that various individuals might not be as mobile or willing to move since the reward system has been substantially enriched by the use of adult-life stage concepts.

A second potential negative effect that needs study is that individuals might work in one place only long enough to get high pay at a relatively early age and then leave before the adult-life curve reaches a plateau or starts down. Districts should plan for this and protect themselves and employees by supporting a parallel plan, such as annuity programs in which an employee become totally vested only after the employee reaches certain points on the pay curve (This is a suggested topic for future research).

The use of the adult-life stage compensation system could be considered a alternative or optional reward program for LEA personnel. Allowing individuals the element of choice will enhance their commitment to the reward system.

Not all personnel will opt for the program given the opportunity to do so; some individuals will view the program with skepticism.

Many individuals do not understand their reward systems today; therefore, any changes--even those offerring higher salary levels--will be scrutinized carefully by individuals before they make any commitments to the program. Generally, individuals take a conservative approach to their reward systems when they have such choices.

The adult-life stage compensation system could be designed using different criteria (e.g., years of service). The curves could be designed to reflect the number of years of service individuals would potentially have with the LEA. Various curves could be built from the same basic assumptions. Resulting curve lines would resemble those in the present study, but the distances between the traditional and the adult-life stage lines might not be as great as those in the present study (the dollar differences would be less than in this study). An advantage is that this system would allow LEA leaders to identify and use criteria of their choice that meet their needs and also the needs of the personnel.

Implementation of a adult-life stage compensation system would not penalize existing personnel since the system could be developed from the LEAs existing traditional compensation system. Personnel would already be at a point

on the curve and/or within the system that reflects their compensation levels. An adjustment at beginning levels (using current starting salaries as in Scenario One in this study) would not cause parallel adjustments throughout the system like a five percent raise in base pay might trigger. This should avoid problems such as the two-tier model used by some organizations, especially organizations such as airlines where seniority is the major pay factor.

If LEA personnel consider the use of the adult-life stage compensation system, they should make careful comparisons between the alternative models by developing and itemizing the advantages and disadvantages of each method. The adult-life stage system allows LEAs to play "what if" with scenarios concerning the compensation data of personnel as a means to project expenditure patterns over employment cycles.

Effectiveness of the adult-life stage compensation system should be directly related to the performance/productivity of the LEA personnel. LEAs must identify, develop, evaluate, and provide rewards that reflect performance levels that impact student achievement or district goals. Since the LEAs' primary product is educating students, then student performance outcomes could be used as a primary criterion for the adult-life stage compensation system. Acceptance and implementation of

outcome-driven compensation, an assumption of adult-life stage compensation--will not be easy in education.

The bottom line of the research conducted is whether or not any one (school district leaders or administrators) is willing to be a leader and take the first step on being different (providing a reward system that is developed primarily for individuals) in how they view and reward their most valued asset--people. Failure to be creative in changing compensation practices and other reward programs when circumstances call for change will result only in continuing decay of the educational system.

If, as some believe, there is a need to increase pay for educators then it seems reasonable to consider any increases vis-a-vis changes in the total structure--indeed even the philosophy--of compensation systems for education. The adult-life stage model can be developed to use only what the traditional model would use (Scenario One) or it can be adjusted to use more resources in the same time span as the traditional model (Scenarios Two and Three).

Although the workforce population has changed substantially in the 1980s in education as related to women and minorities, this study did not address these variables as stated in the limitations. These can be topics for future research.

Typically, school district budgets are built year-to-year with no carry-over provisions. The model suggested

here may require carry-over funds. Thus, an impediment to implementation may be the need for referendum or other processes for permission.

Important results of a new compensation system are not just the total dollars spent, but also the value to the educator of the dollars "frontloaded". This model's potential is to attract and hold good candidates while providing opportunities to contribute to their well-being.

BIBLIOGRAPY

Achilles, C. M. (1984). Forecast: Stormy weather ahead in educational administration. Issues in Education, II, (2), Fall, 127-134.

Bandura, A. (1976). Social learning theory. Prentice-Hall, Englewood Clifts, NJ, 105-132.

Bardwick, J. M. (1986). The plateauing trap. American Management Association, New York, NY.

Baugh, W. H. and J. A. Stone. (1982). Sex differences in the educator labor market: Final report. Oregon University, Center for Educational Policy and Management, Eugene, OR.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), Advances in Experimental Social Pyschology, 6, 1-14.

Benson, C. S. (1968). The economics of public education. Houghton Miffin Co., Boston, MA.

Bertelsen, K. H. (1983). A study of phased retirement programs at land-grant colleges and universities and the development of phased retirement models for the University of Tennessee. Unpublished dissertation University of Tennessee, Knoxville, TN.

Burke, P. J. and other (1984). Teacher career stages: Implications for staff development. Fastback 214. Phi Delta Kappa Educational Foundation, Bloomington, IN, 9-16.

Castetter, W. B. (1989-90). Educational reform and the compensation factor. National Forum of Educational Administration and Supervision Journal, 6, (2), 6-23.

Cetron, M. J. and M. E. Gayle (1990). Educational renaissance: 43 trends for U.S. schools. The Futurist, September-October, 1990, 35.

Crandall, K. W. and D. B. Reed (1986). Career patterns of female administrators in public schools. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

Deci, E. L. (1971). The effects of externally mediated rewards on instrinsic motivation. Journal of Personality and Social Psychology, 18, 105-115.

____ (1975). Instrinsic motivation. Plenun, New York, NY.

Drucker, P. F. (1989). The new realities. Harper & Row, Publishers, New York, NY.

Eberhart, M. C. (1990). An evaluation of career stages. Unpublished dissertation. University of North Carolina at Greensboro, Greensboro, NC.

Erikson, E. H. (1963). Childhood and society (rev. ed.). Norton, New York, NY.

French, W. (1990). Human resources management, 2nd edition. Houghton Mills Company, Boston, MA, 187.

Garnitz, R. (1990). Taking responsibility: Mid-career planning. Perspectives in Total Compensation, American Compensation Association, 1, (2), April, 1-4.

Gay, L. R. (1987). Educational research - Competencies for analysis and application, Third edition. Merrill Publishing Company, 131 and 208-213.

Geddie, C. and B. Strickland (1984). From plateaus to progress: A model for career development. Training, 21, (6), 60-61.

Goldstein, W. (1986). Recruiting superior teachers: The interview process, Fastbook 239. Phi Delta Kappa Educational Foundation.

Goodlad, J. I. (1983). A place called school: Prospects for the future. McGraw-Hill, New York, NY.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. Educational Communication and Technology Journal, 29, 75-91.

Hall, D. T. and K. E. Nougaim (1968). An examination of Maslow's neeed hierarchy in an organizational setting. Organizational Behavior and Human Performance, 3, 12-35.

----, (1976). Careers in organizations. Goodyear, Pacific Palisades, CA.

---- and M. Morgan (1977). Career development and planning. In W. C. Hanmer & F. L. Schmidt (Eds.). Contemporary Problems in Personnel. St.Clair Press, Chicago, IL.

Hellriegel, D., J. W. Slocum, Jr., and R. W. Woodman (1989). Organizational Behavior, 5th ed., West Publishing Co., New York, NY, 150-157.

Henry, D. D. (1986). Lessons and goals for education. Educational Forum, 50, (3), 309-311.

Herzberg, F. (1966). Work and the nature of man. Crowell Publications, New York, NY.

--------, (1959). The motivation to work (2nd ed.), John Wiley & Sons, New York, NY.

Huberman, M. (1989). The professional life cycle of teachers. Teachers College Record, 9, (1), 31-37.

Hunushek, E. A. (1989). The impact of differential expenditures on school performance. Educational Researcher, May, 41-50.

Jacobson, S. L. (1986). Alternative practices of internal salary distribution and their effects on teacher recruitment and retention. Unpublished dissertation. Cornell University, Ithaca, NY.

Johns, H. E. (1988). Faculty perceptions of teacher career ladder program. Contemporary Education, 59 (4), 198-202.

Johnson, J. L. (1987). School administrator supply and demand for the State of Maine. A study conducted for the Department of Educational and Cultural Services Advisory Committee on administrator supply and demand. University of Southern Maine, Testing and Assesment Center, Gorham, ME.

Kanter, R. M. (1977). Work and family in the United States. New York: Russell Sage Foundation.

---- (1987). From status to contribution: Some organizational implications of the changing basis for pay. Personnel, Special Report, American Management Association, New York, NY.

Krajci, T. J. (1990). Pay that rewards knowledge. HRMagazine, Society for Human Resource Management, June, 47-55.

Landon, L. (1990). Pump up your employees. HRMagazine, Society for Human Resource Management, June, 34-41.

Lawler, E. E. (1981). Pay and organization development. Addison-Wesley, Reading, MA.

Ledford, Jr., G. E. (1990). The effectiveness of skill-based pay. Perspectives in Total Compensation, 1, (1), American Compensation Association, Phoenix, AZ.

Levinson, D. J. and others (1978). The seasons of a man's life. Alfred A. Knopf, New York, NY.

Lewis, T. and E. D. Edington (1983). Small district teacher study. Executive Summary, Monograph No. 2, New Mexico State University, Las Cruces, NM, Center for Rural Education.

Locke, E. A. (1982). Employee motivation: A discussion. Journal of Contemporary Business, 2, (2), 40-45.

Lombardo, M. M. and C. D. McCauley (1988). The dynamics of management derailment. Technical Report Number 34, Center for Creative Leadership, Greensboro, NC.

Lortie, D. C. (1975). Schoolteachers: A sociological study. University of Chicago Press, Chicago, IL.

Maslow, A. H. (1954). Motivation and personality. Harper and Row, New York, NY.

McGravey, R. (1990). Shaking the career plateau. USAir Magazine, October, 108-112.

Meisenheimer, J. R. and W. J. Wiatrowski (1989). Flexible benefits plans: Employees who have a choice. Monthly Labor Review, 112, December, 17-23.

Monk, D. H. (1989). The education production function. Educational Evaluation and Policy Analysis, 11 (1), 43.

---- and S. L. Jacobson. (1985). The distribution of salary increments between veteran and novice teachers: evidence from New York state. Journal of Education Finance, 11, 157-175.

---- and S. L. Jacobson (1985). Reforming teacher compensation. Education and Urban Society, 17, (2), 223-235.

National Commission on Excellence in Educational Administration (1987). Leaders for America's schools. The University Council for Educational Administration.

Robinson, G. E. and M. H. Brown (1990). School salaries, 1989-90. Principal, May, 59-63.

---- and M. H. Brown (1989). School salaries, 1988-89. Principal, May, 49-53.

---- and M. H. Brown (1988). School salaries, 1987-88. Principal, May, 50-54.

Sagria, M. A. and L. K. Johnsrud, (1987). Many are candidates but few compete: The impact of internal position changes of administrative and professional staff on white women and minorities. The Ohio State University, Department of Educational Policy and Leadership, Columbus, OH.

Schlechty, P. C. and V. S. Vance (1981). Do academically able teachers leave education? The North Carolina case. Phi Delta Kappan, 63, (2), 106-112.

Sedlak, M. and S. Schlossman (1986). Who will teach? Historical perspectives on the changing appeal of teaching as a profession. Rand Corporation.

Shafritz, J. M. (1980). Dictionary of personnel management and labor relations. Moore Publishing Company, Inc., Oak Park, IL.

Shanker, A. (1988). Reforming the reform movement. Educational Administration Quarterly, 24, (4), 366-373.

---- (1983). Albert Shanker's address to the AFT Convention (1983). American Federation of Teachers, Washington, DC.

---- (1984). Educational Reform: The teaching force problem. National Forum: Phi Kappa Phi Journal, 64, (2), Spring, 15-19.

---- (1986). Our profession, our schools: The case for fundamental reform. American Educator, 10, (3), Fall, 10-17, 44-45.

---- (1985). The making of a profession. American Educator, 9, (3), Fall, 10-17, 46, 48.

---- (1983). Address by Albert Shanker, National Press Club Luncheon, Washington, DC.

Sheehy, G. (1974). Passages -- predictable crises of adult life. Bantam Books, New York, NY.

Sherman, J. D. and H. L. Smith (1984). The influence of organizational structure on instrinsic versus extrinsic motivation. Academy of Management Journal, 27, (4), 877-885.

Sizer, T. (1984). Horace's compromise: The dilemma of the American high school. Houghton Mifflin, Boston, MA.

Speicher, D. (1990). Who will lead America's schools in 21st century?. The School Administrator, January, 6.

Strother, D. B. (1991). A measure of excellence. Phi Delta Kappa, Center for Education, Development and Research, Bloomington, IN.

Super, D. E. (1963). Career development: Self-concept theory. College Entrance Examination Board, New York, NY.

Tischer, A. G. and Earnest, B. (1989). Career dissatisfaction among Alabama teachers: A follow-up. A paper presented at the annual meeting of the Mid-South Educational Research Association. Little Rock, AR.

Thayer, A. N. and others (1980). A digest of ideas for implementing the management team. Association of California School Administrators, 146-151.

United States. Department of Labor, Bureau of Labor Statistics (1988). Employee benefits survey of medium and large firms. Washington, DC.

United States. National Commission on Excellence in Education (1983). Meeting the challenge of a nation at risk. USA Research.

Vroom, V. H. (1964). Work and motivation. John Wiley & Sons, New York, NY.

Walker, C. T. (1990). The new compensation: Coping in a changing environment. Perspectives in Total Compensation, 1, (3), American Compensation Association, Phoenix, AZ.

Wrightman, L. S. (1988). Personality development in adulthood. Sage Publications, Newbury, CA.

APPENDIX A

CLOVIS UNIFIED SCHOOL DISTRICT
1450 HERNDON AVENUE • CLOVIS, CALIFORNIA 93612 • (209) 297-4000 • FAX (209) 297-4872

April 2, 1991

Dr. C.M. Achilles
Professor and Chair
Department of EAR
UNCG, Curry Building
Greensboro, NC 27412-5001

Dear Dr. Achilles:

You have our permission to make use of available data in the Clovis Unified School District (CUSD) Standard Data Base in order to run salary projections based (1) on salary schedules governing administrators currently in our system by using our salary schedule and district policies, and (2) those same administrators using the theoretic salary schedules that you have developed from research and literature. We understand that you will not use any person's name in the projections, nor will you identify any persons, group, or buildings, etc., by name. This guarantee of anonymity will assure that our data are simply a "data base" and not to be used in any way to identify an individual or group.

Since the study is theoretic in nature, we do not see any potential harm to the school system by using its name in the research report, if that should be necessary. As you are projecting hypothetical salary curves, and as the data are readily and currently available in our data base (and certainly some data are public knowledge, such as tax-rate information), we can see no harm in the identification of the school system. Therefore, please feel free to report the study using your standard and professional reporting procedures.

We are pleased that you selected our school district as the trial run for this idea. We'd like to have a copy of your findings.

Sincerely,

Floyd B. Buchanan, Ed.D.
District Superintendent

FBB:ac

APPENDIX B
TABLE B-1

Case 1. Traditional and Adult-Life Stage Compensation Level Projections of a Local Education Agency Administrator's Employment Cycle.

	TRADITIONAL	SCENARIOS		
AGE	METHOD	#1	#2	#3
23	7,704	7,704	7,704	7,704
24	8,404	9,244	9,244	9,665
25	9,323	10,349	10,442	10,815
26	11,000	12,320	12,540	12,870
27	12,754	14,412	14,795	15,050
28	13,909	15,856	16,413	16,552
29	15,550	17,825	18,600	18,600
30	17,188	19,938	20,969	20,797
31	19,461	22,769	24,131	23,742
32	21,619	25,510	27,240	26,591
33	23,212	27,622	29,711	28,783
34	24,418	29,302	31,743	30,523
35	27,173	32,879	35,868	34,238
36	32,851	40,078	44,020	41,721
37	35,315	44,437	48,028	45,203
38	37,964	47,075	52,390	48,974
39	39,672	49,590	55,541	51,574
40	41,229	52,037	58,645	54,102
41	44,273	56,227	63,753	58,440
42	45,601	58,369	66,577	60,649
43	46,969	60,590	69,514	62,938
44	48,378	62,891	72,567	65,310
45	49,829	65,276	75,740	67,767
46	51,324	64,623	74,225	67,089
47	52,864	63,977	72,741	66,418
48	54,449	63,337	71,286	65,754
49	56,083	62,704	69,860	65,097
50	57,765	62,077	68,463	64,446
51	59,498	61,456	67,094	63,801
52	61,283	60,841	65,752	63,163
53	63,121	60,233	64,437	62,532
54	65,015	59,631	63,148	61,906

Table B-1 (Continued)

AGE	TRADITIONAL METHOD	SCENARIOS #1	#2	#3
55	66,965	59,034	61,885	61,287
56	68,974	58,441	60,647	60,674
57	71,044	57,860	59,434	60,068
58	73,175	57,281	58,246	59,467
59	75,000	56,708	57,081	58,872
60	75,000	56,141	55,939	58,284
61	75,000	55,580	54,820	57,701
62	75,000	55,024	53,724	57,124
63	75,000	54,473	52,650	56,552
64	75,000	54,328	51,597	55,987
65	75,000	54,325	50,565	54,867
TOTAL	$1,960,376	$1,960,376	$2,099,769	$2,033,697

APPENDIX B
TABLE B-1 (continued)

Scenarios and Assumptions
for Testing the
Theoretical Compensation Model

DESCRIPTION: Individual is 42 years of age and has a base salary level of $45,601.

ASSUMPTIONS: Traditional Method

1. Individual will work until normal retirement age (65).

2. Individual started to work at the LEA at 23 years of age.

3. Salary level for ages 43 through 58 was calculated by adding a three percent increase each year starting with the salary level of $45,601 (age 42).

4. Salary level for ages 59 through 65 was capped at the $75,000 maximum potential earning power of the position.

5. For ages 23 through 42, the individual's actual salary history was used.

ASSUMPTIONS: Adult-Life Stage Scenarios

1. All scenarios start with the same base salary level as the traditional method for the first year.

2. All scenarios continue to increase in dollar amounts until they reach 45 years of age and then they begin a downward slope.

Table B-1 (continued)

ASSUMPTIONS: Adult-Life Stage Scenario #1

1. Salary level for age 24 was 10 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 11 percent above the traditional base salary for the same age, then increases to 12 percent, then 13 percent, etc.) until reaching age 45.

3. For ages 46 through 63, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

4. Ages 64 and 65 are determined by totalling the salary level of ages 23 through 63 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($1,960,376). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life method (it should be the same as the traditional method - $1,960,376).

ASSUMPTIONS: Adult-Life Stage Scenario #2

1. See #1 above.

2. Salary level for ages 25 through 45 increases two percent above previous year (Example: Age 25 is 12 percent above the traditional base salary for the same age, then increases to 14 percent, then 16 percent, etc.) until reaching age 45.

Table B-1 (continued)

3. For ages 46 through 65, the salary level was calculated at a .98 rate of the previous adult-life stage salary level starting with age 45.

ASSUMPTIONS: Adult-life Stage Scenario #3

1. Salary level for age 24 was 15 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 16 percent above the traditional base salary for the same age; then increases to 17 percent, then 18 percent, etc.) until reaching age 45.

3. For ages 46 through 65, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

APPENDIX B
TABLE B-2

Case 2. Traditional and Adult-Life Stage Compensation Level Projections of a Local Education Agency Administrator's Employment Cycle

AGE	TRADITIONAL METHOD	SCENARIOS #1	#2	#3
22	5,425	5,425	5,425	5,425
23	5,885	6,474	6,474	6,768
24	6,610	7,337	7,403	7,668
25	7,305	8,182	8,328	8,547
26	8,000	9,040	9,280	9,440
27	8,575	9,776	10,119	10,204
28	9,291	10,685	11,149	11,149
29	10,429	12,098	12,723	12,619
30	11,633	13,611	14,425	14,192
31	13,345	15,747	16,815	16,414
32	14,723	17,520	18,845	18,256
33	16,823	20,188	21,870	21,029
34	18,085	21,883	23,872	22,787
35	18,085	22,064	24,234	22,968
36	20,762	25,537	28,236	26,575
37	23,718	29,410	32,731	30,596
38	24,667	30,834	34,534	32,067
39	26,643	33,570	37,833	34,902
40	28,744	36,543	41,435	37,982
41	32,851	42,049	47,962	43,692
42	35,315	45,556	52,266	47,322
43	37,964	49,353	56,946	51,251
44	39,672	51,970	60,301	53,954
45	41,299	54,515	63,600	56,580
46	44,273	54,515	62,328	56,014
47	45,601	54,515	61,081	55,454
48	46,969	54,515	59,860	54,900
49	48,378	54,515	58,663	54,350
50	49,829	54,515	57,489	53,807
51	51,324	54,515	56,340	53,269
52	52,864	54,515	55,213	52,736
53	54,449	54,515	54,109	52,209

Table B-2 (continued)

AGE	TRADITIONAL METHOD	SCENARIOS #1	#2	#3
54	56,083	54,515	53,026	51,609
55	57,765	54,515	51,966	51,170
56	59,498	54,515	50,927	50,658
57	61,283	54,515	49,907	50,152
58	63,121	54,515	48,910	49,650
59	65,015	54,515	47,932	49,154
60	66,965	54,515	46,973	48,662
61	68,974	54,515	46,034	48,176
62	71,044	54,515	45,113	47,694
63	73,175	54,515	44,211	47,217
64	75,000	45,926	43,326	46,745
65	75,000	45,926	42,460	46,277
TOTAL	$ 1,652,489	$1,652,489	$1,682,674	$1,622,008

APPENDIX B
TABLE B-2 (continued)

Scenarios and Assumptions
for Testing the
Theoretical Compensation Model

DESCRIPTION: Individual is 47 years of age and has a base salary level of $45,601.

ASSUMPTIONS: Traditional Method

1. Individual will work until normal retirement age (65).

2. Individual started to work at the LEA at 22 years of age.

3. Salary level for ages 48 through 63 was calculated by adding a three percent increase each year starting with the salary level of $45,601 (age 47).

4. Salary level for ages 64 through 65 was capped at the $75,000 maximum potential earning power of the position.

5. For ages 22 through 47, the individual's actual salary history was used.

ASSUMPTIONS: Adult-Life Stage Scenarios

1. All scenarios start with the same base salary level as the traditional method for the first year.

2. All scenarios continue to increase in dollar amounts until they reach 45 years of age and then they begin a downward slope.

Table B-2 (continued)

ASSUMPTIONS: Adult-Life Stage Scenario #1

1. Salary level for age 23 was 10 percent above the traditional method base salary for age 23.

2. Salary level for ages 24 through 45 increases one percent above the previous year (Example: Age 24 is 11 percent above the traditional base salary for the same age, then increases to 12 percent, then 13 percent, etc.) until reaching age 45.

3. For ages 46 through 63, the salary level was the same as the previous salary level ($54,515).

4. Ages 64 and 65 are determined by totalling the salary level of ages 23 through 63 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($1,652,489). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life method (it should be the same as the traditional method - $1,652,489).

ASSUMPTIONS: Adult-Life Stage Scenario #2

1. See #1 above.

2. Salary level for ages 24 through 45 increases two percent above previous year (Example: Age 24 is 12 percent above the traditional base salary for the same age, then increases to 14 percent, then 16 percent, etc.) until reaching age 45.

Table B-2 (continued)

3. For ages 46 through 65, the salary level was calculated at a .98 rate of the previous adult-life stage salary level starting with age 45.

ASSUMPTIONS: Adult-life Stage Scenario #3

1. Salary level for age 23 was 15 percent above the traditional method base salary for age 23.

2. Salary level for ages 24 through 45 increases one percent above the previous year (Example: Age 24 is 16 percent above the traditional base salary for the same age; then increases to 17 percent, then 18 percent, etc.) until reaching age 45.

3. For ages 46 through 65, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

APPENDIX B
TABLE B-3

Traditional and Adult-Life Stage Compensation Level Projections Over the Employment Cycle of Deputy, Associate or Assistant Superintendents and Administrators

		TRADITIONAL	SCENARIOS		
AGE	YEAR	METHOD	#1	#2	#3
23	70	24,798	24,798	24,798	24,798
24	71	25,565	28,122	28,122	29,400
25	72	26,355	29,254	29,518	30,572
26	73	27,170	30,430	30,974	31,789
27	74	28,011	31,652	32,493	33,053
28	75	28,877	32,920	34,075	34,364
29	76	29,770	34,236	35,724	35,724
30	77	30,691	35,602	37,443	37,136
31	78	31,640	37,019	39,234	38,601
32	79	32,618	38,489	41,099	40,120
33	80	33,627	40,016	43,043	41,697
34	81	34,667	41,600	45,067	43,334
35	82	35,739	43,244	47,175	45,031
36	83	36,845	44,951	49,372	46,793
37	84	37,984	46,720	51,658	48,620
38	85	39,159	48,557	54,039	50,515
39	86	40,370	50,463	56,518	52,481
40	87	41,619	52,439	59,099	54,521
41	88	42,906	54,491	61,785	56,636
42	89	44,233	56,618	64,580	58,830
43*	1990	45,601	58,826	67,489	61,105
44	91	46,969	61,059	70,454	63,408
45	92	48,378	63,375	73,535	65,794
46	93	49,829	62,741	72,064	65,136
47	94	51,324	62,114	70,623	64,485
48	95	52,864	61,493	69,211	63,840
49	96	54,449	60,878	67,826	63,201
50	97	56,083	60,268	66,470	62,569
51	98	57,765	59,666	65,140	61,943
52	99	59,498	59,070	63,838	61,324
53	2000	61,283	58,479	62,561	60,711
54	01	63,121	57,894	61,310	60,104

Table B-3 (continued)

AGE	YEAR	TRADITIONAL METHOD	SCENARIOS #1	#2	#3
55	02	65,015	57,315	60,083	59,503
56	03	66,965	56,742	58,882	58,908
57	04	68,974	56,175	57,704	58,319
58	05	71,044	55,613	56,550	57,735
59	06	73,175	55,056	55,419	57,158
60	07	75,000	54,506	54,311	56,587
61	08	75,000	53,961	53,224	56,021
62	09	75,000	53,422	52,160	55,461
63	10	75,000	52,877	51,117	54,906
64	11	75,000	45,825	50,094	54,356
65	12	75,000	45,825	49,093	53,813
TOTAL		$2,114,801	$2,114,801	$2,274,794	$2,210,402

Footnote:

* LOCAL EDUCATION AGENCY'S (LEA) AVERAGE AGE AND BASE STARTING SALARY LEVEL FOR SUB-GROUP

APPENDIX B
TABLE B-3 (continued)

Scenarios and Assumptions
for Testing the
Theoretical Compensation Model

DESCRIPTION: Individual is 43 years of age and has a base salary level of $45,601.

ASSUMPTIONS: Traditional Method

1. Individual will work until normal retirement age (65).

2. Individual started to work at the LEA at 23 years of age.

3. Salary level for ages 49 through 59 was calculated by adding a three percent increase each year starting with the salary level of $45,601 (age 43).

4. Salary level for age 60 through 65 was capped at the $75,000 maximum potential earning power of the position.

5. For ages 23 through 42, the salary level was calculated in a descending order starting at age 42. The salary level for age 42 was multiplied by .97 rate of the previous traditional salary level (age 43; $45,601).

ASSUMPTIONS: Adult-Life Stage Scenarios

1. All scenarios start with the same base salary level as the traditional method for the first year.

2. All scenarios continue to increase in dollar amounts until they reach 45 years of age and then they begin a downward slope.

Table B-3 (continued)

ASSUMPTIONS: Adult-Life Stage Scenario #1

1. Salary level for age 24 was 10 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 11 percent above the traditional base salary for the same age, then increases to 12 percent, then 13 percent, etc.) until reaching age 45.

3. For ages 46 through 63, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

4. Ages 64 and 65 are determined by totalling the salary level of ages 23 through 63 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($2,114,801). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life method (it should be the same as the traditional method - $2,114,801).

ASSUMPTIONS: Adult-Life Stage Scenario #2

1. See #1 above.

2. Salary level for ages 25 through 45 increases two percent above previous year (Example: Age 25 is 12 percent above the traditional base salary for the same age, then increases to 14 percent, then 16 percent, etc.) until reaching age 45.

Table B-3 (continued)

3. For ages 46 through 65, the salary level was calculated at a .98 rate of the previous adult-life stage salary level starting with age 45.

ASSUMPTIONS: Adult-life Stage Scenario #3

1. Salary level for age 24 was 15 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 16 percent above the traditional base salary for the same age; then increases to 17 percent, then 18 percent, etc.) until reaching age 45.

3. For ages 46 through 65, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

APPENDIX B
TABLE B-4

Traditional and Adult-Life Stage Compensation Level Projections over the Employment Cycle of Coordinators and Directors

		TRADITIONAL	SCENARIOS		
AGE	YEAR	SALARY	#1	#2	#3
23	65	21,295	21,295	21,295	21,295
24	66	21,953	24,148	24,148	25,246
25	67	22,632	25,122	25,348	26,253
26	68	23,332	26,132	26,598	27,298
27	69	24,054	27,181	27,903	28,384
28	70	24,798	28,270	29,262	29,510
29	71	25,565	29,400	30,678	30,678
30	72	26,355	30,571	32,153	31,890
31	73	27,170	31,789	33,691	33,147
32	74	28,011	33,053	35,294	34,453
33	75	28,877	34,364	36,963	35,807
34	76	29,770	35,724	38,701	37,213
35	77	30,691	37,136	40,512	38,671
36	78	31,640	38,601	42,398	40,183
37	79	32,618	40,120	44,360	41,751
38	80	33,627	41,697	46,405	43,379
39	81	34,667	43,334	48,534	45,067
40	82	35,739	45,031	50,749	46,818
41	83	36,845	46,739	53,056	48,635
42	84	37,984	48,620	55,457	50,519
43	85	39,159	50,515	57,955	52,473
44	86	40,370	52,481	60,555	54,500
45	87	41,619	54,521	63,261	56,602
46	88	42,906	53,976	61,996	56,036
47	89	44,233	53,436	60,756	55,476
48	*1990	45,601	52,902	59,541	54,921
49	91	46,969	52,373	58,350	54,372
50	92	48,378	51,849	57,183	53,828
51	93	49,829	51,331	56,039	53,290
52	94	51,324	50,817	54,918	52,757
53	95	52,864	50,309	53,820	52,229

Table B-4 (continued)

AGE	YEAR	TRADITIONAL SALARY	SCENARIOS #1	#2	#3
54	96	54,449	49,806	52,744	51,707
55	97	56,083	49,308	51,689	51,190
56	98	57,765	48,815	50,655	50,678
57	99	59,498	48,327	49,642	50,171
58*	2000	61,283	47,843	48,649	49,669
59	01	63,121	47,365	47,676	49,173
60	02	65,015	46,891	46,723	48,681
61	03	66,965	46,422	45,788	48,194
62	04	68,974	45,958	44,872	47,712
63	05	71,044	45,499	43,975	47,235
64	06	73,175	56,811	43,095	46,763
65	07	75,000	56,811	42,234	46,295
Total		$1,853,247	$1,853,247	$1,955,621	$1,899,519

Footnote:

*LOCAL EDUCATION AGENCY (LEA) AVERAGE AGE AND BASE SALARY LEVEL OF SUB-GROUP

APPENDIX B
TABLE B-4 (Continued)

Scenarios and Assumptions
for Testing the
Theoretical Compensation Model

DESCRIPTION: Individual is 48 years of age and has a base salary level of $45,601.

ASSUMPTIONS: Traditional Method

1. Individual will work until normal retirement age (65).

2. Individual started to work at the LEA at 23 years of age.

3. Salary level for ages 49 through 64 was calculated by adding a three percent increase each year starting with the salary level of $45,601 (age 48).

4. Salary level for age 65 was capped at the $75,000 maximum potential earning power of the position.

5. For ages 23 through 47, the salary level was calculated in a descending order starting at age 47. The salary level for age 47 was multiplied by .97 rate of the previous traditional salary level (age 48; $45,601).

ASSUMPTIONS: Adult-Life Stage Scenarios

1. All scenarios start with the same base salary level as the traditional method for the first year.

2. All scenarios continue to increase in dollar amounts until they reach 45 years of age and then they begin a downward slope.

Table B-4 (continued)

ASSUMPTIONS: Adult-Life Stage Scenario #1

1. Salary level for age 24 was 10 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 11 percent above the traditional base salary for the same age, then increases to 12 percent, then 13 percent, etc.) until reaching age 45.

3. For ages 46 through 63, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

4. Ages 64 and 65 are determined by totalling the salary level of ages 23 through 63 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($1,853,247). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life method (it should be the same as the traditional method - $1,853,247).

ASSUMPTIONS: Adult-Life Stage Scenario #2

1. See #1 above.

2. Salary level for ages 25 through 45 increases two percent above previous year (Example: Age 25 is 12 percent above the traditional base salary for the same age, then increases to 14 percent, then 16 percent, etc.) until reaching age 45.

Table B-4 (continued)

3. For ages 46 through 65, the salary level was calculated at a .98 rate of the previous adult-life stage salary level starting with age 45.

ASSUMPTIONS: Adult-life Stage Scenario #3

1. Salary level for age 24 was 15 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 16 percent above the traditional base salary for the same age; then increases to 17 percent, then 18 percent, etc.) until reaching age 45.

3. For ages 46 through 65, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

APPENDIX B
TABLE B-5

Traditional and Adult-Life Stage Compensation Level Projections over the Employment Cycle of Site - Management Personnel

		TRADITIONAL	SCENARIOS		
AGE	YEAR	SALARY	#1	#2	#3
23	72	26,355	26,355	26,355	26,355
24	73	27,170	29,887	29,887	31,246
25	74	28,011	31,092	31,372	32,493
26	75	28,877	32,342	32,920	33,786
27	76	29,770	33,640	34,533	35,129
28	77	30,691	34,988	36,215	36,523
29	78	31,640	36,386	37,968	37,968
30	79	32,618	37,837	39,794	39,468
31	80	33,627	39,344	41,697	41,025
32	81	34,667	40,907	43,680	42,640
33	82	35,739	42,529	45,746	44,316
34	83	36,845	44,214	47,899	46,056
35	84	37,984	45,961	50.139	47,860
36	85	39,159	47,774	52,473	49,732
37	86	40,370	49,655	54,903	51,674
38	87	41,619	51,608	57,434	53,689
39	88	42,906	53,633	60,068	55,779
40	89	44,233	55,734	62,811	57,945
41*	1990	45,601	57,913	65,665	60,193
42	91	46,969	60,120	68,575	62,469
43	92	48,378	62,408	71,599	64,827
44	93	49,829	64,778	74,744	67,269
45	94	51,324	67,234	78,012	69,801
46	95	52,864	66,562	76,452	69,102
47	96	54,449	65,896	74,923	68,412
48	97	56,083	65,237	73,424	67,728
49	98	57,765	64,585	71,956	67,051
50	99	59,498	63,939	70,517	66,380
51	2000	61,283	63,299	69,106	65,716
52	01	63,121	62,666	67,724	65,059
53	02	65,015	62,040	66,370	64,409
54	03	66,965	61,419	65,042	63,764

Table B-5 (continued)

AGE	YEAR	TRADITIONAL SALARY	SCENARIOS #1	#2	#3
55	04	68,974	60,805	63,741	63,128
56	05	71,044	60,197	62,467	62,496
57	06	73,175	59,595	61,217	61,871
58	07	75,000	58,999	59,993	61,252
59	08	75,000	58,409	58,793	60,639
60	09	75,000	57,825	57,617	60,033
61	10	75,000	57,247	56,465	59,433
62	11	75,000	56,674	55,336	58,838
63	12	75,000	56,108	54,229	58,250
64	13	75,000	33,389	53,144	57,667
65	14	75,000	33,388	52,081	57,091
TOTAL		$2,214,618	$2,214,618	$2,415,426	$2,346,562

Footnote:

*LOCAL EDUCATION AGENCY AVERAGE AGE AND BASE SALARY LEVEL OF SUB-GROUP

APPENDIX B
TABLE B-5 (continued)

Scenarios and Assumptions
for Testing the
Theoretical Compensation Model

DESCRIPTION: Individual is 41 years of age and has a base salary level of $45,601.

ASSUMPTIONS: Traditional Method

1. Individual will work until normal retirement age (65).

2. Individual started to work at the LEA at 23 years of age.

3. Salary level for ages 42 through 57 was calculated by adding a three percent increase each year starting with the salary level of $45,601 (age 41).

4. Salary level for ages 58 through 65 was capped at the $75,000 maximum potential earning power of the position.

5. For ages 23 through 40, the salary level was calculated in a descending order starting at age 40. The salary level for age 40 was multiplied by .97 rate of the previous traditional salary level (age 41; $45,601).

ASSUMPTIONS: Adult-Life Stage Scenarios

1. All scenarios start with the same base salary level as the traditional method for the first year.

2. All scenarios continue to increase in dollar amounts until they reach 45 years of age and then they begin a downward slope.

Table B-5 (continued)

ASSUMPTIONS: Adult-Life Stage Scenario #1

1. Salary level for age 24 was 10 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 11 percent above the traditional base salary for the same age, then increases to 12 percent, then 13 percent, etc.) until reaching age 45.

3. For ages 46 through 63, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

4. Ages 64 and 65 are determined by totalling the salary level of ages 23 through 63 of the adult-life method and then subtracting the amount from the total salary paid under the traditional method ($2,214,618). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life method (it should be the same as the traditional method - $2,214,618).

ASSUMPTIONS: Adult-Life Stage Scenario #2

1. See #1 above.

2. Salary level for ages 25 through 45 increases two percent above previous year (Example: Age 25 is 12 percent above the traditional base salary for the same age, then increases to 14 percent, then 16 percent, etc.) until reaching age 45.

Table B-5 (continued)

3. For ages 46 through 65, the salary level was calculated at a .98 rate of the previous adult-life stage salary level starting with age 45.

ASSUMPTIONS: Adult-life Stage Scenario #3

1. Salary level for age 24 was 15 percent above the traditional method base salary for age 24.

2. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 16 percent above the traditional base salary for the same age; then increases to 17 percent, then 18 percent, etc.) until reaching age 45.

3. For ages 46 through 65, the salary level was calculated at a .99 rate of the previous adult-life stage salary level starting with age 45.

APPENDIX B
TABLE B-6

Case 1. Alternate Investment Approaches Utilizing Traditional and Adult-Life Stage Compensation Methods for a Local Education Agency Administrator

AGE	ANNUAL SALARY $	AMOUNT ANNUAL SALARY INVESTED (10%)	INVESTMENT PLUS 6% INTEREST EARNED (4)	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
23	7,704	770	816	7,704	770	816
24	8,404	840	1,755	9,244	924	1,844
25	9,323	932	2,849	10,349	1,035	3,052
26	11,000	1,100	4,186	12,370	1,237	4,546
27	12,754	1,275	5,788	14,412	1,441	6,346
28	13,909	1,391	7,610	15,856	1,586	8,408
29	15,500	1,550	9,710	17,825	1,783	10,802
30	17,188	1,719	12,115	19,938	1,994	13,564
31	19,461	1,946	14,905	22,769	2,277	16,791
32	21,619	2,162	18,091	25,510	2,551	20,503
33	23,212	2,321	21,637	27,622	2,762	24,661
34	24,418	2,442	25,524	29,302	2,930	29,246
35	27,173	2,717	29,935	32,879	3,288	34,486
36	32,851	3,285	35,312	40,078	4,008	40,804

Table B-6 (Continued)

AGE	ANNUAL SALARY $	AMOUNT ANNUAL SALARY INVESTED (10%) EARNED ($)	INVESTMENT PLUS 6% INTEREST	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
37	35,315	3,532	41,070	44,437	4,444	47,963
38	37,964	3,796	47,558	47,075	4,708	55,831
39	39,672	3,967	54,617	49,590	4,959	64,437
40	41,299	4,130	62,272	52,037	5,204	73,819
41	44,273	4,427	70,701	56,227	5,623	84,209
42	45,601	4,560	79,777	58,369	5,837	95,449
43	46,969	4,697	89,542	60,590	6,059	107,598
44	48,378	4,838	100,043	62,891	6,289	120,720
45	49,829	4,983	111,328	65,276	6,528	134,883
46	51,324	5,132	123,448	64,263	6,426	149,788
47	52,864	5,286	136,458	63,977	6,398	165,557
48	54,449	5,445	150,417	63,337	6,334	182,204
49	56,083	5,608	165,387	62,704	6,270	199,782
50	57,765	5,777	181,434	62,077	6,208	218,349
51	59,498	5,950	198,627	61,456	6,146	237,965
52	61,283	6, 128	217, 040	60,841	6,084	258,692
53	63,121	6,312	236,753	60,233	6,023	280,598
54	65,015	6,502	257,850	59,631	5,963	303,755
55	66,965	6,697	280,420	59,034	5,903	328,257
56	68,974	6,897	304,556	58,441	5,844	354,126

Table B-6 (continued)

AGE	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY INVESTED (10%)	INVESTMENT PLUS 6 % INTEREST EARNED	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
57	71,044	7,104	330,360	57,860	5,786	381,507
58	73,175	7,318	357,939	57,281	5,728	410,469
59	75,000	7,500	387,365	56,708	5,671	441,108
60	75,000	7,500	418,557	56,141	5,614	473,525
61	75,000	7,500	451,620	55,580	5,558	507,828
62	75,000	7,500	486,667	55,024	5,502	544,130
63	75,000	7,500	532,817	54,473	5,447	582,552
64	75,000	7,500	563,196	54,328	5,433	623,264
65	75,000	7,500	604,938	54,325	5,461(1)	666,449
TOTALS						
	$1,960,376	$190,036		$1,960,376	$196,036	
Difference between principal and principal plus interest under each method			$408,902			$470,413

FOOTNOTES:

(1) Twenty-eight dollars added to investment amount to balance total dollars available for investment. Amount is the result of rounding off at the decimal point.

APPENDIX B
TABLE B-6 (Continued)

Case 1. Assumptions for Alternative Investment Strategies for LEA Administrator

Traditional Method

1. Individual holds a doctorate of education degree.

2. Salary level for ages 23 through 42 utilized the individual's actual salary during that period of time.

3. Salary level of ages 43 through 58 was calculated by adding a three percent increase each starting with the salary level at age 42 ($45,601).

4. Salary level for ages 59 through 65 was capped at the $75,000 maximum potential earning power of the position.

5. Ten percent of annual salary is invested at six percent annum on January 1 each year. This amount is added to the current balance from previous years.

Adult-Life Stage Method

1. Individual holds a doctorate of education degree.

2. Salary level for age 23 had the same base salary level as the traditional method for the same year (23).

3. Salary level for age 24 was 10 percent above the traditional method base salary for age 24.

4. Salary level for ages 25 through 45 increases one percent above the previous year (Example: Age 25 is 11 percent above the traditional base salary for the same age, then increases to

Table B-6 (continued)

12 percent, then 13 percent, etc.) until reaching age 45.

5. Salary levels for ages 46 through 63 was calculated at a .99 rate of the previous adult-life stage level starting with age 45.

6. Salary level for ages 64 and 65 were determined by totalling the salary levels of age 22 through 63 of the adult-life method and then subtracting the amount form the total salary paid under the traditional method ($1,960,376). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life stage method (it should be the same as the traditional - $1,960,376).

7. Ten percent of the annual salary is invested at six percent annum on January 1 of each year. This amount is added to the current balance from previous years.

APPENDIX B
TABLE B-7

CASE 2. Alternative Investment Approaches Utilizing Traditional and Adult-Life Stage Compensation Methods for a Local Education Agency Administrator

AGE	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY INVESTED (10%)	INVESTMENT PLUS 6% INTEREST EARNED ($)	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
22	5,425	543	576	5,425	543	576
23	5,885	589	1,235	6,474	647	1,296
24	6,610	661	2,010	7,337	734	2,152
25	7,305	731	2,905	8,182	818	3,148
26	8,000	800	3,927	9,040	904	4,293
27	8,575	858	5,072	9,776	978	5,589
28	9,291	929	6,361	10 ,685	1,069	7,057
29	10,429	1,043	7,848	12,098	1,210	8,763
30	11,633	1,163	9,552	13,611	1,361	10,731
31	13,345	1,335	11,540	15,747	1,575	13,044
32	14,723	1,472	13,793	17,520	1,752	15,864
33	16,823	1,682	16,404	20,188	2,019	18,765
34	18,805	1,809	19,306	21,883	2,188	22,210
35	18,085	1,809	22,382	22,064	2,206	25,881
36	20,762	2,076	25,925	25,537	2,554	30,141

Table B-7 (continued)

AGE	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY INVESTED (10%)	INVESTMENT PLUS 6 % INTEREST EARNED ($)	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
37	23,718	2,372	29,925	29,410	2,941	35,067
38	24,667	2,467	34,410	30,834	3,083	40,439
39	26,643	2,664	39,298	33,570	3,357	46,424
40	28,774	2,877	44,706	36,543	3,654	53,083
41	32,851	3,285	50,870	42,049	4,205	60,725
42	35,315	3,532	57,666	45,556	4,556	69,198
43	37,964	3,796	65,150	49,353	4,935	78,581
44	39,672	3,967	73,264	51,970	5,197	88,805
45	41,299	4,130	82,039	54,515	5,452	99,912
46	44,273	4,427	91,653	54,515	5,452	111,686
47	45,601	4,560	101,986	54,515	5,542	124,166
48	46,969	4,697	113,084	54,515	5,452	137,395
49	48,378	4,838	124,997	54,515	5,452	151,418
50	49,829	4,983	137,779	54,515	5,452	166,282
51	51,324	5,132	151,486	54,515	5,452	182,038
52	52,864	5,286	166,178	54,515	5,452	198,739
53	54,449	5,445	181,920	54,515	5,452	216,442
54	56,083	5,608	198,780	54,515	5,452	235,208
55	57,765	5,777	216,830	54,515	5,452	255,100
56	59,498	5,950	236,147	54,515	5,452	276,185

Table B-7 (continued)

AGE	ANNUAL SALARY $	AMOUNT ANNUAL SALARY INVESTED (10%)	INVESTMENT PLUD 6% INTEREST EARNED ($)	ANNUAL SALARY $	AMOUNT OF ANNUAL SALARY $ INVESTED (10%)	INVESTMENT PLUS INTEREST EARNED ($)
57	61,283	6,128	256,812	54,515	5,452	298,535
58	63,121	6,312	278,911	54,515	5,452	322,226
59	65,015	6,502	302,538	54,515	5,452	347,339
60	66,965	6,697	327,789	54,515	5,452	373,958
61	68,974	6,897	354,767	54,515	5,452	402,175
62	71,044	7,104	383,583	54,515	5,452	432,085
63	73,175	7,318	414,355	54,515	5,452	463,789
64	75,000	7,500	447,166	45,926	4,593	496,485
65	75,000	7,498(1)	481,944	45,926	4,852(2)	531,131
TOTALS:						
	$1,652,489	$165,249		$1,652,489	$165,249	
Difference between principal and principal plus interest under each method			$316,695			$365,882

FOOTNOTES:

(1) Amount adjusted by $2 to allow total to equal 10 percent of total annual salary earned over the lifetime of the individual.

(2) Amount adjusted by $11 to allow total to equal 10 percent of total annual salary earned over the lifetime of the individual.

APPENDIX B
TABLE B-7 (Continued)

Case 2. Assumptions for Alternative Investment Strategies for LEA Administrator

Traditional Method

1. Individual holds a doctorate of education degree.

2. Salary level for ages 22 through 47 utilized the individual's actual salary during that period of time.

3. Salary level of ages 48 through 63 was calculated by adding a three percent increase each starting with the salary level at age 47 ($45,601).

4. Salary level for ages 64 and 65 was capped at the $75,000 maximum potential earning power of the position.

5. Ten percent of annual salary is invested at six percent annum on January 1 each year. This amount is added to the current balance from previous years.

Adult-Life Stage Method

1. Individual holds a doctorate of education degree.

2. Salary level for age 22 had the same base salary level as the traditional method for the same year (22).

3. Salary level for age 23 was 10 percent above the traditional method base salary for age 23.

4. Salary level for ages 24 through 45 increases one percent above the previous year (Example: Age 24 is 11 percent above the traditional base salary for the same age, then increases to

Table B-7 (continued)

12 percent, then 13 percent, etc.) until reaching age 45.

5. Salary levels for ages 46 through 63 was the same as the previous salary level (age 45 - $45,601).

6. Salary level for ages 64 and 65 were determined by totalling the salary levels of age 22 through 63 of the adult-life method and then subtracting the amount form the total salary paid under the traditional method ($1,652,489). The difference is then divided by 2 to determine ages 64 and 65. Then ages 64 and 65 are added to the total salary paid under the adult-life stage method (it should be the same as the traditional - $1,652,489).

7. Ten percent of the annual salary is invested at six percent annum on January 1 of each year. This amount is added to the current balance from previous years.