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A BUDGET ANALYSIS OF EXPENDITURE PATTERNS
FOR NON-TEACHING SPECIALISTS

By

Steven Evan Henick

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Education

in

Educational Administration and Higher Education

Department of
Educational Administration and Higher Education
University of Nevada, Las Vegas
August, 1985
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August, 1985
Abstract

A BUDGET ANALYSIS OF EXPENDITURE PATTERNS FOR NON-TEACHING SPECIALISTS

Steven Evan Henick

The purpose of this study was to examine the expenditure patterns for certified personnel in selected school districts in the western United States over a ten year span. These certified positions were divided into the categories of District Administrator, Building Administrator, Classroom Teacher, and Specialists.

From the eight selected school district budgets for 1973-1974 and 1983-1984, the Average Daily Membership (A.D.M.), total budget expenditures, and per A.D.M. expenditures were calculated. Then the actual number of positions designated for each category, the actual dollar amount spent on those positions, the percentage of the total expenditures, the per A.D.M. expenditures for that category, and the position-student ratios were calculated for each district for each of the years examined and for all four categories of certified staff.

Data was interpreted by making comparisons between the individual districts and between the large and small districts. Included in this interpretation was the effect of the inflation rate as measured by the Consumer Price Index on the spending over the ten year span. A comparison was made between what was actually spent and what should have been spent if inflation had been factored into the spending.
Several conclusions were reached based on the analyses and interpretation of the data and the review of the literature. The data demonstrated that significant growth had occurred in the number of certificated specialists employed, thus increasing the size of the non-classroom teacher category at a much faster rate than for any other category of certificated employee. This was particularly true for the larger districts. The phenomena of substantial specialist growth has not enhanced the position of the actual classroom teacher, while it has increased district expenditures substantially. In addition, the percentage of the total expenditures spent on the certified staff had deteriorated over the time period. Also, while the eight districts had increased their actual spending, only the four large districts kept pace or exceeded the inflation rate in their spending growth.

Apparently, significant personnel patterns can be revealed through the use of budget analysis and interpretation. Therefore, it was recommended that this study and studies like it be replicated or initiated to guarantee the very best personnel utilization for the purpose of quality education.
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My parents, Charles and Florence Henick, richly deserve mention in this section of my dissertation. They instilled a lifelong desire in their children for a good education, knowledge and learning which
provided the motivation to undertake this level of study. This desire still exists for both myself and my sister, Vicki Henick Streeter.

Lastly, I must acknowledge the most important person in my life, my wife Lynne Marlene Henick. Her constant support, love and belief in my ability made this project a true reality. She was always there for me to cry on her shoulder in times of trouble with the project, there to laugh with me when everything seemed to fall into place. Her security concerning our relationship and marriage made it possible for me to devote the time necessary for completion of a project of this size. It is rare for a newly-married wife to provide her new husband the time and freedom to work on such a project without feeling jealous of that project for the time that it demands. Lynne is one of those special individuals.
CHAPTER ONE

The Problem

Introduction

The American education system was and is under direct attack from within and from the outside. Education faced criticism from many sources, with its failings being detailed in national reports such as "A Nation At Risk." Schools were pressured by various societal factors to move towards excellence. Two of these forces; "paradigm shifts" (6, 1980, p. 26) and "megatrends" (16, 1982), identified in best-selling publications, described the national attention to excellence and signaled what American schools faced in the future.

The immediate outlook for increased education expenditures was dismal (11, 1980, p. 5) and a questioning of the educational worth of certain positions in America's school systems was facing the schools. These phenomena were not limited to the United States. Education in other nations experienced increasing competition for public funds. In the United Kingdom, J. R. Hough had noted that "in the recent climate of cuts in educational expenditure programmes, reports have appeared ... on the standard of the educational service being provided" (9, 1981, p. 42).

Since the mid-1960's, the amount of all state expenditures for welfare had doubled and the amount of funds spent on health services
had risen by approximately 30 percent, while educational services expenditures rose less than 20 percent over the same time period (11, 1980, p. 6).

This trend was also present in the Federal bureaucracy. In the Reagan Administration budgets, the largest percentage increases went to the Defense Department, while the portion for education had declined (11, 1980, p. 6).

To state it bluntly, educators faced "declines in education's share of . . . expenditures" (17, 1983, p. 351). Sherman, Tron, and Williams stated that as a result of declining (or below average) state revenues, schools faced "greater competition for funds among all public services" (17, 1983, p. 378).

With the increased competition for the public revenue dollar, projections for educational expenditures during the 1980's and 1990's looked fairly dismal (11, 1980, p. 5). To further an explanation of the situation, Orlando Furno stated that "any school district that does not take a carefully balanced approach to . . . spending is headed for—or is already in—serious trouble" (7, 1971, p. 56).

Several other trends played a part in this pessimistic outlook for educational expenditures. They included:

1. Declining enrollments. Between 1970 and 1990, there was an anticipated 17 percent decrease in the K-12 age population (51.3 million to 42.7 million). This happened while the population as a whole showed an increase of 11.4 million from 2970 to 1980 alone. This trend was not expected to slow (10, 1982 and 17, 1983, p. 344-345).
2. Loss of local voter support. In the 1981 Gallup Poll, only 30 percent of those surveyed approved of an increase in taxes to support schools, as compared to 45 percent who approved of the same statement in 1969. There were several possible explanations for this trend. First, the number of voters who had a direct interest in schools was decreasing. Secondly, of those who were involved in the schools (such as parents), a higher percentage of those were lower-income and/or immigrant citizens with little recognized political power. Lastly, there was the negative image of education that was generally presented in the media, which did influence voters (10, 1982).

3. Consolidation. As school districts continued to consolidate into larger school districts, personnel growth was incurred. Services that were previously too expensive for a small district could then be offered by the larger district. Frequently, this led to an increased bureaucratization to deliver the services.

4. Decreased Federal aid. While the federal percentage of school funds peaked at 9 percent in 1978 (17, 1983, p. 352), recent Reagan Administration decisions to return many federal programs to the states lead to a lower percentage of federal funds (10, 1982, p. 71).

5. Finally, there was the possibility of diminishing specialization. According to Michael Kirst, between 1961 and 1971, the number of instructional specialists increased by
378 percent as compared to a 42 percent increase in classroom teachers. He felt that "reform-by-addition" (10, 1982, p. 72) had peaked and would not expand in the future.

In an article published in 1984, the authors stated that the number of district-wide instructional supervisors had steadily decreased in the past decade (4, 1984, p. 84), somewhat in support of Kirst's prediction (10, 1982, p. 72). Yet, there appeared to be a contradiction in the current status of these non-teaching educational specialists, and in the spending patterns for these personnel. Another report stated that the number of specialists had increased over the period of 1968 to 1978, as well as the number of all teachers overall (a 13 percent increase), while the student population fell 5 percent over the same time period (1, N.D.).

Statement of the Problem

The purpose of this study was to determine the specific changes in patterns of spending over a specified period of time for selected public school systems. A comparative-historical analysis of current budgets and the budgets of a decade ago for districts with student populations between 1,000 and 30,000 and between 40,000 and 800,000 students to determine the status, both in budgetary and numerical terms, to determine any significant shifts in patterns of spending.

Therefore, the following question and subquestions would serve as the basis for the collection and analysis of the data:

1. What patterns had emerged over the ten year span in certified personnel expenditures of the selected school districts?
A. What percentage of the district's total expenditures were represented by certified personnel in the past and today?

B. What per Average Daily Membership (A.D.M.) costs did these certified personnel represent in the past and currently?

C. Numerically, allowing for population changes, what was the growth or decline of certified non-teaching specialists in the districts studied?
   1) What was the ratio of non-teaching certified specialists to actual classroom teachers 10 years ago and in today's budget?

D. What were the student-teacher ratios of the selected years?
   1) What were the non-teaching specialists-student ratios in 1973-1974 and 1983-1984?

E. What was the effect of inflation, as measured by the Consumer Price Index, on per-pupil expenditures?
   1) Was there real growth or decline of costs relative to the Consumer Price Index?

Significance of the Study

Funding for schools was bleak and the future outlook also appeared dismal. Some researchers stated "nationally the incidence of fiscal distress in school districts appears to be escalating rather than declining" (13, 1983, p. 256).

One trend that affected fiscal policies was that of the demand by the public for accountability (19, 1972, p. 16). This "trend toward
accountability of educational personnel and institutions has increased rather than decreased" (5, 1976, p. 3). Demand for accountability has resulted in "various systems and methods [being] devised by local school districts . . . [that] are patterned after the management systems utilized cost accounting which have been used successfully . . . in . . . industry" (19, 1972, p. 16).

A method that was being utilized for inter-district comparisons was the time-honored budget analysis. Budget analysis "endeavors to ascertain and evaluate the costs of units of services performed or units of benefits received" (12, 1960, p. 152). This type of analysis was the "most responsive system possible . . . for positive, rational . . . action" (2, 1976, p. 50). It was "one important way of making sense out of a . . . budget" (8, 1977, p. 8). Henry Linn felt that this type of study, involving the comparison of costs in similar school systems, was basic to school administration (14, 1956, p. 197).

Michael Babunakis listed several benefits of an analysis that were of interest to this study. They included:

1. An early warning system to avert fiscal or program crises;
2. Justification for elimination of uneconomical projects or programs;
3. Information to set priorities among programs competing for limited resources;
4. Evaluation of programs to ensure accomplishment of objectives;
5. New organizational alignments and assignments of responsibilities;

In the 1970's, the United States Office of Education recommended a Functional Classification of Expenditures. Functional classifications "provided a basis for comparing one school system with another . . . " (18, 1974, p. 479). It was "by far the most adequate,
and it produces fairly comparable statistics" (14, 1956, p. 197). By setting a uniform classification of expenditures, the Office of Education strived to eliminate the largest problem of comparisons, identified by Knezevich and Fowlkes, specifically the limitation of data due to the lack of "uniformity in . . . terminology" (12, 1960, p. 157). Analyzing expenditures by per pupil expenditures was also utilized by the United States Office of Education (20, 1957, p. 127) as well as being utilized by various other studies concerning district allocation patterns (3; 5; 8; 18). The Per Pupil analysis required that the A.D.M. of pupils be divided into the total expenditures for a specific area. The resulting amount would be the per pupil expenditure for that specific area or program.

A related portion of the first method of analysis, which was an integral part of this study, was the concept of the Staff-Pupil Ratios. Allan S. Mandel believed that this ratio was one of the factors of the "measure of resources per student" (15, 1975, p. 34). The Staff-Pupil ratio was determined by dividing the number of staff or teachers into the A.D.M. of students.

The third method (if one counted the related portion above as a separate method) of traditional analysis was one identified by Knezevich and Fowlkes. This was an analysis of expenditures expressed as a percentage of the total expenses of the district. In the percentage method, the total expenditures for a specific area were divided by the grand total of all expenditures, to get a resulting percentage for that specific area (12, 1960, p. 160-162).
By utilizing these methods, it was hoped that some light would be shed on the apparent contradiction mentioned in the introduction, which had been acknowledged by Arthur Costa and Charles Guditus as an area in need of future study. They believed that more research must be done on the costs and current situation of instructional supervisors.

In a report on an Association for Supervision and Curriculum Development task force, the authors stated that "reviews of research on ... staffing patterns ... need to be located and synthesized. Surveys of selected school districts representing various sizes ... need to be performed" (4, 1984, p. 85). In addition, they indicated "comparisons need to be made between how districts were organized five to ten years ago and how they are presently organized" (4, 1984, p. 85). To further this research, the task force had allocated a portion of their funds to mini-grants to encourage others to conduct an inquiry into these problems. Costa and Guditus stated quite clearly that there were "more questions than answers" (4, 1984, p. 85) on this subject.

**Definition of Terms**

1. A.D.M. — Average daily membership. The average number of students enrolled over a set period of time (20, 1957, p. 127).

2. Allocation — "A part of a lump-sum appropriation designated for expenditure by specific organization unit and/or specific purposes, activities, or objects" (18, 1974, p. 494).

3. Budget — A plan for financial operations composed of an estimate of proposed expenditures for a given period of time, and a proposed means of financing those expenditures (12, 1960, p. 17).
4. Classroom Teacher—"A person employed to instruct pupils in situations wherein the teacher and the pupils are in the presence of each other. This term is not applied to principals, librarians, or other instructional personnel . . ." (20, 1957, p. 234).

5. Comparative Analysis—The effectiveness and efficiency of a specific program by comparing that program to similar programs performed in other like entities (2, 1976, p. 248).

6. Expenditure—"The total charges incurred, whether paid or unpaid, for current expense, capital outlay, and debt service" (20, 1957, p. 223).

7. Functional Classification—The segregation of work by major purposes being served (23, 1984, p. 286).


9. Line-Item Budget—A traditional type of budgeting that achieves great specificity by reducing categories to "line items" such as supplies, maintenance, and personnel, etc. (2, 1976, p. 279).

10. Non-Teaching Specialist—Any certificated person paid as a classroom teacher with no direct responsibility for students. They generally include guidance personnel, library and media specialists, psychological personnel, consultants and supervisors of instruction, and other support services personnel (20, 1957, p. 47-49).
**Assumptions**

The following assumptions were made regarding this study:

1. There has been a steady increase in expenditures over the past decade for non-teaching specialists.

2. The percentage of a total district budget in expenditures for non-teaching positions increased over the past ten years.

3. The per A.D.M. costs of these specialists had increased over the past decade.

4. The total number of certified specialists increased over the period studied.

5. The pupil-teacher ratio including specialists had declined at a faster rate than if specialists were excluded from the calculations.

6. The non-teaching specialist-pupil ratio declined over the past decade, and at a faster rate than the classroom teacher-pupil ratio over the same period.

7. The inflation-adjusted per A.D.M. figures for the specialists showed a greater growth than for any other category.

8. Budget analysis was an acceptable and defensible method to determine patterns of expenditures.

**Limitations**

The following limitations existed as parameters for this study:

1. The nature of this study was historical, utilizing a combination of survey, budget category analysis, per A.D.M. analysis, and pupil-teacher ratio comparisons.
2. Complete random sampling techniques were not utilized. Only eight representative unified school districts that met the population requirements and in the selected geographical region were asked to supply the necessary budget documents. The procedure used in the sample selection process was detailed in the section of this study entitled "Method of Research."

3. Geographical location was limited to the western states of Colorado, California, Nevada, New Mexico, Utah, and Arizona. Due to the fact that this study possibly required visits to the districts' main offices, time and financial considerations played a part in the selection of the sample.

4. Time constraints were placed on the budgetary data. Budgets utilized were the fiscal years 1983-1984 and that of a decade before, 1973-1974. The latter date was chosen based on a recommendation made in the report of the Association for Supervision and Curriculum Development task force (4, 1984, p. 85).

5. Size limitations were used to show the comparisons between the large and small districts in hopes of verifying the propensity of large organizations to grow at a much faster rate than small organizations. The actual size limitations were:
   A. Four districts with pupil populations between 1,000 and 30,000 pupils;
   B. Four districts with pupil populations of between 40,000 and 800,000 pupils.
6. It was not intended to imply that a generalization could be made for the entire range of school districts in the United States on the basis of the sample utilized in this study.

Method of Research

Selection of the sample was to be done utilizing a rational model proposed by Deobold B. Van Dalen in his book *Understanding Educational Research* (21, 1979, p. 128-131).

The first step was to define the population. This was done in the previous section (steps three, four, and five). The next step was to list the populations that met the requirements. For this study, *Patterson's American Education, 1984* was utilized to complete this step.

Once that phase was completed, a representative sample was selected. Here, random selections were made. Every effort to be random was attempted.

Once the districts to be used were identified and their budget documents secured, analysis of the data began. Analysis required computations of the total numbers of non-teaching specialists, the pupil-teacher ratios, the per A.D.M. expenditures, and the respective percentages. This data collection was in accordance with methods utilized by the Educational Research Service, a nationally known agency that provided budget analysis data to member school districts.

Once the data had been computed and collated, a comprehensive analysis was undertaken, including a comparison of financial data for each district for both of the years selected for study.
Organizer of the Study

The study was organized as follows. Chapter One included an introduction, the statement of the problem, a generalized determination of the significance of the study, the assumptions that were made, the limitations of the study, a brief review of the method of research used, a definition of terms, and other related introductory material.

Chapter Two included a more comprehensive review of the literature on the history of budgets, budget analysis, the concept of the Consumer Price Index and the effect of inflation on spending, organizational growth, and the status of non-teaching specialists.

The procedure for the gathering of the data, a description of the analyses and interpretation of the data that corresponded to the question and its sub-questions stated in Chapter One were included in Chapter Three. In other words, Chapter Three consisted of the Research Design of the study.

Chapter Four included the actual analyses and interpretation of the basic budgetary data. This information was related and corresponded to the Research Design as set forth in Chapter Three.

A brief restatement of the problem, summary of the research, conclusions, and any recommendations concerning either the status of non-teaching specialists or for any future studies constituted Chapter Five.
Selected Bibliography


CHAPTER TWO

Review of the Literature

This second chapter was a review of the literature pertinent to the study. The review began with a short introduction to the concept of budgeting in general, a brief narrative of the history of budgeting in the Federal Government, followed by a historical review of the budget process in the states and the local political arenas as well as a short review of the history of budgeting in local school systems throughout the United States. Next, a section on the Consumer Price Index (a vital part of this study), what the literature had to say on the growth of personnel in an organization; and lastly, a review of what the literature had said about the status of the "non-teaching" instructional personnel, or as they were sometimes called "educational specialists, was presented.

Introduction

Budgets came into being when and where there existed a need for economy and efficiency in financial operations. They accompanied the growth of representative government and the financial complexities of governmental operations (28, 1960, p. 17).

The history of budgeting was definitely not a long one in comparison with the history of man and his government. The term "budget" started out as a term to describe the "money bag or the public purse, which served as a receptacle for the revenue and expenditure of
the state" (8, 1967, p. 2). Eventually the term came to mean the documents that were contained in the bag.

Development of the government budget in the United States was extremely haphazard. Unlike the development process in most of the civilized world, the development process in the United States did not progress from the national government to the state and local governments. But rather, it progressed from the states and municipalities to the national government.

At the time of the American Revolutionary War, the budgetary process in Great Britain was not well developed. Therefore, there was little that the new American government could emulate from their brethren in London. As a result, there was no clear statement of process or concept in regards to budgeting, expenditures, or revenues in the United States Constitution, other than that contained in Article 1, Section 9,

No money shall be drawn from the treasury, but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time (8, 1967, p. 9).

The National Budget

In the early years of the United States, there was no formal budgeting process. In fact, it was not until the "Budget and Accounting Act of 1921" was passed, that a definite procedure was established. This act established the Bureau of the Budget, the Government Accounting Office, and the concept of the Executive Budget concept, detailed later in this chapter.
During the beginning years of the republic, cabinet officials went directly to Congress for their appropriations and funding. The President did not have the power to change these requests, nor was there any mechanism or procedure for him to influence the department's request. This resulted from the fear in Congress of giving the President too much authority and power. It must be remembered that the members of Congress vividly remembered "the excessive power of monarchial government" (1, 1976, p. 3).

In 1796, the House of Representatives appointed a Committee on Ways and Means, later to be a permanent standing committee in 1802. Between 1802 and 1865, revenue and appropriation authority rested with this committee. It was also during the early part of this period that the "separation of cabinet officials from the day-to-day work of Congress was made complete" (8, 1967, p. 10). This budget period was termed the "Congressional System" (38, 1955, p. 53). It lasted from 1801 to 1921.

At this point in history, the Federal departments submitted their expenditure requirements to the Secretary of the Treasury, who compiled them into a Book of Estimates. Neither he nor the President could "criticize, alter, reduce, or coordinate the requests" (8, 1967, p. 11). All he, as Secretary of the Treasury, could do was to present the requirements. He was merely a clerk. Because this system was so fragmented and there existed no centralized control mechanisms, there was little coordination and much wastage in Federal spending. What little planning there was during the period of 1802-1865, came from the House Ways and Means Committee. During this period, there also existed
increased "friction . . . between the administration and the Congress . . ." (8, 1967, p. 10).

However, in 1865, a separate House Appropriations Committee was appointed. This committee also had authority to recommend appropriations, further dissipating the unity of appropriations-making and review. This appointment seemed to open a floodgate of committees authorized to appropriate public funds in Congress. By the early 1890's, there existed ten House committees with authority to appropriate. The Senate almost equaled this number. It had eight committees authorized to appropriate.

This was a period when the major financial problem facing Congress was the large surplus building up in the Federal Treasury. It was a period of waste, one in which America's "wealth [was] so great, her revenue so elastic, that she [was] not sensible of the loss" (8, 1967, p. 11). President Cleveland, on December 6, 1887, estimated the surplus would be in excess of $140 million by the end of the fiscal period. It was not hard to understand why this period of congressional activity was "characterized by extreme irresponsibility and wasteful extravagance" (8, 1967, p. 12)!

However, this situation was not to continue. These surpluses were not persistent after 1894. From that date, the nation went through six years of deficit spending.

Yet, these deficits were not totally caused by mismanagement or waste. America was going through a great national expansion. Still, early in the 20th Century, "a wave of reform swept over nearly all aspects of government in response to public objections to rising expenditures" (1, 1976, p. 4).
In 1910, President Taft created a Presidential Commission "to inquire into the methods of transacting the public business" (27, p. 18). Their report, entitled "The Need For A National Budget" (dated June 19, 1912), listed six very specific recommendations. They were:

1. That the President, as the . . . head of the Executive branch . . . submit to the Congress . . . a budget;
2. That the budget . . . shall contain:
   a. a budgetary message . . .
   b. a summary financial statement . . .
   c. a summary of expenditures . . .
   d. summaries of estimates . . .
   e. a summary of changes in law . . .
3. That the Secretary of the Treasury . . . submit to Congress the following detailed reports supporting the general summaries and Executive conclusions or recommendations as follows:
   a. a Book of Estimates . . .
   b. a consolidated financial report . . .
4. That the head of each department and independent establishment should . . . submit to the . . . Treasury and to the Congress annual reports which . . . would contain detailed accounts of expenditures . . . together with the amounts of increases or decreases in stores, equipment, property, etc. . . .
5. That the President and heads of departments issue orders which will require that such accounts be kept . . . as will enable them to obtain the information needed to consider the different conditions, relations, and results . . . before the estimates are submitted . . .
6. That the President recommend for the consideration of the Congress such changes in the form of appropriation bills as will enable the Government to avail itself of the benefits of the exercise of discretion on the part of the Executive in the transaction of current business . . . in order . . . accomplish with economy and efficiency . . . (24, p. 7-8).

There were three significant aspects of this report. It was the first time that the structure of the Federal Government had been studied in detail. Secondly, it was the first time that the character and the nature of government expenditures had received attention. Lastly, and probably most importantly, this document set forth "an
assumption of responsibility by the Chief Executive for financial
planning and for the management of the government's business" (8, 1967,
p. 19).

However, with the defeat of President Taft by Woodrow Wilson in
the Presidential election of 1912, and more pressing problems (such as
World War I), no legislation was forthcoming on the Commission's
recommendations until after the war had ended.

In 1919, the House of Representatives appointed a Select Committee
on the Budget. This committee covered the same areas as the previous
Taft Commission and came up with similar proposals. The House, as a
whole, responded very positively to its committee's report, legislating
it almost completely.

However, the Senate was occupied with other problems, such as the
ratification of the Versailles Treaty, and therefore, did not consider
a budget bill until early in 1920. By May of 1920, both houses had
completed action on a budget bill. However, President Wilson vetoed
the bill based on a constitutional question of a small part of the
total bill.

With the election of Warren Harding and other republicans, the
bill was finally signed into law on June 10, 1921.

This law, "The Budget and Accounting Act of 1921," had three main
purposes. They were:

1. to provide for a comprehensive Presidential budget;
2. to provide the President with the Budget Bureau to assist
him in the preparation of the budget and to strengthen his
authority over the Executive departments;
3. to assign responsibility for accounting to a General
Accounting Office under a Comptroller General (38, 1955,
p. 72).
Under this act, the President was to submit a complete budget with both revenues and expenditures listed. If there was a deficit, he was required to recommend "new taxes, loans, or other appropriate action" (38, 1955, p. 72) to reduce this deficit. If there existed a surplus, he was to recommend what "the public interests require" (38, 1955, p. 72).

To help the President, a Bureau of the Budget was mandated. This bureau was to prepare the budget and was "empowered to assemble, correlate, revise, reduce, or increase the estimates of the . . . departments" (38, 1955, p. 73).

The third vital section of this act established the General Accounting Office (known as the GAO). This office was to be independent of the Executive branch of the government. The office was to maintain the ledger accounts of disbursing and collections, as well as dealing with "all claims and demands whatever by the Government of the United States or against it" (24, 1978, p. 17). This office was also responsible for prescribing the "forms, systems, and procedure for administrative appropriation and fund accounting" (24, 1978, p. 17).

This act typified the concept of "Fiscal Control Budgeting" (1, 1976, p. 4).

Further refinements in this fiscal process were made during the 1920's and 1930's. The concept of the line-item budget continued to become further entrenched during this period.

Gradually, between the 1930's and the 1950's, the budget orientation changed from the previous one of "Fiscal Control Budgeting" to one of "Management Control Budgeting" (1, 1976, p. 5).
In 1949, the Hoover Commission, set up by Congress in response to the recognition that reform was needed, made several recommendations that resulted in needed legislation. This legislation included "The National Security Act Amendments of 1949" and "The Budget and Accounting Procedures Act of 1950."

This commission recommended designing the budget based upon "functions, activities, and projects" (38, 1955, p. 83). It also proposed "much closer relations" (38, 1955, p. 86) between the Bureau of the Budget and the Executive branch of the Federal government.

Lastly, it attempted a compromise on the problem of who was responsible for accounting and auditing in the Federal government. Actual responsibility was to remain with the Comptroller General, while other duties were assigned to the Department of the Treasury.

In 1974, the United States Congress debated and passed a new act that solidified its place in the Federal budget process. This act, Public Law 93-344, was entitiled "The Congressional Budget and Impound Act of 1974." The effective date of this act was July 12, 1974.

With this act, "Congress . . . launched an historic effort to strengthen its capacity to exert its constitutional authority over the revenues, expenditures, and general economic condition of the nation" (24, 1978, p. 372).

Public Law 93-344, "The Congressional Budget and Impound Act of 1974," firmly established the Senate and House Budget Committees, as well as the Congressional Budget Office. In effect, this act provided the mechanism needed to deal with the increasing difficulty in dealing with the control and change incumbent in the federal budget. It
provided Congress with its own framework from "which to exercise its overall judgement . . . on the closely related elements of economic conditions and total revenues and expenditures" (24, 1978, p. 373), something that Congress did not have in the years past.

Most currently, the Executive branch of the Federal government experimented with several different methods of budgeting. These methods included Zero-Based Budgeting (Z.B.B.), Performance-Based Budgeting (P.B.B.), and the Planning-Programming Budgeting (P.P.B.) system. Due to the shortage of time that these programs have been in use, no judgement as to their usefulness for governmental budgeting could be made.

Zero-Based Budgeting was an indicator of the public's desire for accountability in governmental spending. Zero-Based Budgeting was defined as

An operating planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch [hence zero base] and shifts the burden of proof to each manager to justify why he should spend any money at all. This approach requires that all activities be identified in 'decision packages' which will be evaluated by systematic analysis and ranked in order of importance (11, 1977, p. 12).

**Municipal and State Budget History**

The development and usage of a budget and the budget process by various states and municipalities in the United States actually preceded the actions taken by the Federal government. As Knezevich and Fowlkes stated, "the influences which contributed to the development of the Federal [budget] were similar to those which brought about city and state budgets at an earlier date" (28, 1960, p. 18). In other words,
the pressures for national budget reform led from the states and municipalities. Some of this pressure resulted from the actions of such reformers as Lincoln Steffins, Ida Tarbell, and Ray Stannard Baker. These three campaigned actively against municipal corruption.

Up until the late 1890's, states and cities faced fiscal conditions that were characterized by:

1. No central official... empowered to review or revise departmental estimates, or to make fiscal recommendations;
2. Each department's estimates were submitted separately, often at different times...;
3. Each agency classified its accounts in its own way;
4. The estimates usually were lacking supporting data and were presented in lump sums;
5. Agency requests were not related to revenue projections or to overall... expenditures;
6. Each department bargained with the... committees, and funds were appropriated separately for each department;
7. There was little or no central supervision of department spending (37, 1971, p. 14-15).

Then some very important events occurred. The first, in 1899, was the drafting of a model municipal corporation act by the National Municipal League (8, 1967, p. 13). The important feature of this act was the idea of a municipal budget system. This system was to be under the direct supervision of the mayor or the chief executive officer of the governmental unit.

Since this organization proposed local reforms, which many people felt were necessary, this act was extremely influential. The act was adopted by many municipalities. However, it resulted in a governmental structure problem, discussed later in this chapter.

The second, and probably the most important event, occurred in 1906. This date marked the establishment of the New York Bureau of Municipal Research. This bureau, led by William H. Allen, Frederick
Cleveland, and Henry Brueer, immediately set up a study to provide action towards setting New York City on a municipal budget system. Their first report, entitled "Making a Municipal Budget" (8, 1967, p. 13), came out in 1907.

The Bureau's first step was to put New York City's Health Activities Department on a budget system. This system worked so well and was met with such enthusiasm that the system was extended to the other city activities and departments over the next few years.

With the success in New York City, reformers fanned out across the United States. These reformers termed themselves "progressive." They "accepted . . . the new positive conception of government, and verged upon the idea of a planned and managed society" (8, 1967, p. 13). They believed that the budget system was "a major weapon for installing responsibility in the government structure" (8, 1967, p. 14).

However, these reformers came across a problem, mentioned briefly before in this chapter. In most American cities, the executive power possessed by city mayors was "relatively inadequate" (8, 1967, p. 14). Most finance matters were in the custody of the city councils. This situation necessitated a structural "reorganization and . . . a redistribution of authority" (8, 1967, p. 14). Like the situation in the Federal government, the result was the rise of the Executive Budget concept.

By the mid-1920's, "most major American cities had undergone a more or less thorough reform in municipal financial practices and had established some sort of a budget system" (8, 1967, p. 14).
These phenomena accelerated in the next few years as a result of several factors, among them an increased demand for city services, the passage of the Federal 18th Amendment (and the corresponding loss of revenue from the non-sale of alcoholic beverages), and pressure from the business community for accountability and governmental responsibility.

The significant period in state budgeting was between the years 1911 and 1926. Previous to 1911, the vast majority of states did not face any financial crises or pressure for reform. Typically, the "state was a comparatively small tax-collecting and tax-expending unit of government" (28, 1960, p. 18). Their appropriation and expenditure practices were "grounded in legislative initiative and supremacy in financial affairs" (37, 1971, p. 14). However, after 1911, these practices were continually modified by the pressure for executive budget processes, much like those that were faced by American cities.

With the rapid growth of state expenditures, $188 million in 1902 to $1.4 billion in 1922 (37, 1971, p. 15), exposes of state leadership ineptitude and corruption, the "growing influence of public administration" (37, 1971, p. 15), and the rise of the "Scientific Management Ethic" (37, 1971, p. 15), there was widespread dissatisfaction with the existing state budgetary practices.

These factors, as well as those affecting the local and Federal governments, had the effect of stimulating state budget process growth and reform. The first state to comply with these pressures was Ohio in 1910. This state was followed in 1911 by California and Wisconsin. By 1913, a total of six (6) states had some form of budgetary laws.
The movement continued to grow, so that by 1920, a total of forty-four (44) states had some form of budgetary laws.

During the 1920's and 1930's, the budget reformers continued to spread "The Word," yet concentrated on the tasks of refining and disseminating the "widely approved control procedures" (37, 1971, p. 21) of the then-current reform movement. This was a period of "control-budgeting" and was "output-oriented" (37, 1971, p. 22). By the end of 1930, this control tradition was firmly in place in the state capitols.

While the Great Depression was having its effect on the national budget, the effect was less dramatic in the states' budgets. It did signal trends, though, towards "stronger gubernatorial leadership and administrative integration" (37, 1971, p. 29), as well as the establishment of the first state Department of Administration. It was not until the results of the Hoover Commission of 1949 came out that the states felt the full impact of reform, leading to management (or performance) budgeting.

This type of budgeting in the states remained "au courant" until the early 1960's. At that time, a new reform movement came onto the scene. This was known as the "Planning-Programming-Budgeting System" (P.P.B.S.). Many states quickly adopted this budgeting process. The lead states in this movement were New York, California, and Wisconsin. The Federal government gave impetus to the P.P.B.S. by setting up the State-Local Finances Project, which commenced in July, 1967. This project, to spread the use of P.P.B.S. by local and state governments, terminated its work in June, 1969.
As with the Federal government, there was still a movement to further reform and experiment with the budget systems by many states. Some states, such as Georgia under then-Governor Jimmy Carter, experimented with such budget process programs as Zero-Based Budgeting (Z.B.B.), Program Analysis and Review (P.A.R.), and Management by Objectives Through Budgeting (M.B.O.B.). Again, only time would tell if these programs were successful on the state level.

School District Budget History

Development of a budget process by school districts in the United States lagged far behind the progress shown by other governmental units. Harry J. Hartley pointed out that "[h]istorically, the formalization and standardization of the school budget lagged behind that of either private or other governmental agencies" (23, 1968, p. 128-129). As of "the end of the first quarter of the twentieth century, public school budgetary practices were unrefined and not standardized to any appreciable degree" (9, 1982, p. 314).

The first comprehensive study of school district budgetary practices occurred only in 1922. This was done by John W. Twente. He utilized school districts in 363 cities. This study, which resulted in his book Budgetary Procedures For a Local School System (Montpelier, Vt.: Capital City Press, 1932), "showed that the practices in . . . school systems were undeveloped and nonstandardized" (36, 1957, p. 174). He "also showed that there was little agreement among the several state laws concerning school budgetary procedures" (36, 1957, p. 174).
In 1925, Arthur B. Moehlman in his book *Public School Finance* (Chicago: Rand McNally & Co., 1927), made the "first functional approach to scientific management of the school monies" (36, 1957, p. 174). His work detailed the procedures to be used in setting up a budget and the budget process in large school systems.

At about the same time, N. L. Englehardt and Fred Englehardt also outlined steps in the preparation and use of a budget in their book *Public School Business Administration* (New York: Bureau of Publications, Teachers College, Columbia University, 1927).

In 1932, Chris DeYoung replicated (to a degree) Twente's previous study, utilizing 813 cities. His book, *Budgetary Practices in Public School Administration* (Evanston, Illinois: Northwestern University Press, 1932), reported that some progress had been made over the ten year period, in that there was more "uniformity in state requirements and in practices followed by many of the cities" (13, 1932, p. 152).

Frances S. Chase and Edgar Morphet in their book *The Forty-Eight State School Systems* (Chicago: Council of State Governments, 1948), "reported that in thirty-one states the school officials had the responsibility for the preparation and approval of school budgets . . . In eleven states, the school budgets had to be submitted to some other local political body for approval . . . In five other states the local political body approved only the total amount . . . in sixteen states all the schools were fiscally dependent" (36, 1957, p. 174).

Currently, Harry J. Hartley noted that "it is exceptional for even the smallest school system not to be using a formally adopted
budget . . . [C]haracteristic of the budgetary structure is a system of classified subdivisions that is now almost universally employed in this country" (23, 1968, p. 129).

Hartley believed that governmental budgeting "evolv[ed] through the following relative stages of development:

1. the object budget;
2. the function-object budget (the present [in 1968] type used by most public school systems); and
3. the Planning-Programming-Budgeting System (or program budget) (23, 1968, p. 129).

Knezevich had defined Program Budgeting (or PPBS) as "a decision system concerned with improving resource allocation decisions when an educational institution is confronted with competing objectives and limited resources" (27, 1973, p. 10). He noted that by 1972, twenty states across the nation made "legislative recommendations or mandates . . . calling for the establishment of program budgeting in education" (27, 1973, p. 11).

The "most comprehensive, carefully planned, and widely publicized project" (27, 1973, p. 22) involved with program budgeting in education was a federal grant given jointly to the Dade County School District in Florida and the Research Corporation of the Association of School Business Officials in 1968. This project "sought to develop and field test program budgeting concepts and practices" (27, 1973, p. 22). This project was completed in 1971, with a report issued in 1972.

At about this time, the United States Office of Education reviewed its Financial Accounting Handbook (Handbook II, Revised). By doing so, the Office of Education attempted to provide a uniform classification of expenditures. This attempt, "provided a basis for comparing one
school system with another . . ." (42, 1974, p. 479), which was the basis of this study, namely the budget analysis of selected school systems.

Budget Analysis

"Traditionally, most educational . . . institutions have avoided costing of services performed. The trend to accountability [was] . . . one factor shattering this tradition" (27, 1973, p. 169). Yet, as Charles S. Benson stated, "Analysis of educational resource allocation is an important matter" (6, 1975, p. 52).

As Professor Sam Tidwell stated, "[s]chool systems have many audiences. Each . . . is concerned . . . with the ways and means of providing the optimum educational opportunity within financial resources available . . ." (42, 2974, p. 477). As a result, demands for accountability from these various groups required that budgetary data be available in an understandable and rational manner. These demands for understandable financial data which were made of school systems would be used to arrive at "informed decisions" (42, 1974, p. 477).

Michael Babunakis stated that "budget reviews, programmatic data, economic reports, and analyses are the only objective guides available" (2, 1982, p. 65) for making these informed decisions.

This demand for accountability by all governmental agencies resulted from a situation described by John White, the Deputy Director of the Federal Office of Management and Budget. He stated it thusly,

we are confronted with growing public dissatisfaction and confusion with the size, performance and, in some cases, the basic role of government. The dissatisfaction is only compounded by indications of fraud and waste (2, 1982, p. 111).
Babunakis himself tended to agree somewhat. He stated that the "absence of budgetary analyses of existing and new programs leads to epic . . . waste and attendant cynical attitudes toward government" (2, 1982, p. 26). This situation extended to the schools. As Robert Alan Lee noted "[f]inancial mismanagement by school officials also has surfaced as a concern of the public and state legislators" (29, 1983, p. 256).

Another factor that demonstrated the need for some form of budget analysis and cost analysis was "as emphasis moves from one to another of the various ways and means of financing elementary and secondary education" (42, 1974, p. 482). Tidwell believed that "cost analysis will . . . become an increasingly important instrument of financial communication for school systems" (42, 1974, p. 482).

Michael Babunakis also identified several reasons why budget analysis was necessary. First, he believed that "analysis helps to make decisions to modify, expand, curtail, continue, or terminate programs" (1, 1976, p. 52). Any governmental agency, be it school district or state government, had the responsibility to all the taxpayers, to make sure that all expenditures be spent at the optimal level. Constant and long-range analyses could be used to adjust programs or costs as public requirements changed.

Secondly, budget analysis would "lessen administrative inertia" (1, 1976, p. 52). Babunakis wrote that "[b]ecause of bureaucratic resistance to change" (1, 1976, p. 53), it was difficult to make any adjustment of existing programs or adding new ones. A budget analysis,
"acting as a catalytic agent, provides the stimulation for change" (1, 1976, p. 53).

Lastly, he felt that analysis would help administrators "demonstrate to the legislative body and the public that existing programs and planned future programs accomplish their stated objectives" (1, 1976, p. 53).

What exactly was "Budget Analysis?" Stephen J. Knezevich defined it as "being the process of systematically posing incisive and relevant questions about program[s] . . . specifically the full costs . . ." (27, 1973, p. 183).

Michael Babunakis stated that "the budget analysis offer[s] a more rational approach to the budgetary process" (1, 1976, p. 8). He also stated that "the most important benefit [of budget analysis] is the introduction of increased rationality into the decision-making process" (1, 1976, p. 53).

Babunakis also has identified six ways that budget analysis would introduce rationality into decision-making. They were:

1. sharpening issues;
2. instituting annual reviews of programs and long-range planning;
3. providing more systems information;
4. allowing more objective decisions;
5. making evaluations easier;
6. providing understandable data (1, 1976, p. 20).

In education, budget analysis' fundamental purpose was "to present and interpret cost data as an aid to management and administration in controlling current and future operations" (28, 1960, p. 153).

Rosenstengel and Eastmond stated that "accurate cost studies [were] essential in presenting financial information to lay citizens. The
average person better understands and appreciates the problems involved in financing public education if he [was] able to see what it costs to operate certain phases of the school program" (36, 1957, p. 254). They believed that the lay citizen was more apt to deal with a per pupil amount than a total dollar amount of an entire entity expenditure.

They also felt that comparative studies were vital and "essential for gaining local support for public education" (36, 1957, p. 257). The two also stated that "comparative cost studies with other school systems often aid in getting a better understanding of public education" (36, 1957, p. 257).

The type of analysis most frequently used in budget analysis was the unit analysis. As Stephen Knezevich stated, "there [was] nothing novel about unit cost analysis in education. It has been a procedure practiced in education for most of the century" (27, 1973, p. 168). In education, the "unit most frequently used . . . is the pupil" (14, 1936, p. 224). As Chris DeYoung stated, the pupil was "the recipient of the education imparted and he [was] at least the basis for calculating instructional cost" (14, 1936, p. 224). Knezevich and Fowlkes delineated it even more clearly. They stated that "one of the most common units of expressing costs of operating public schools is the total current expenditures per pupil in average daily attendance" (28, 1960, p. 154).

This type of analysis, by per-pupil expenditures and by percentages of the total budget has been used by many studies and articles involving school districts and their budgets. They included Harold Throop's article on "Budget Guidelines for Responsible

According to Arvid J. Burke, there were three requirements for a unit cost analysis. They were:

1. a unit of measure which is unchanging (a properly weighted pupil, for example);
2. a uniform cost-accounting system; and
3. uniform standards or specifications for describing the good or service whose cost is to be compared (7, 1957, 46-47).

Therein lay the problem of budget analysis. Knezevich and Fowlkes noted that the largest problem in educational budget analysis was the lack of "uniformity in accounting terminology and procedures" (28, 1960, p. 153). Any inter-district comparison must have taken this fact into account and agreement must have been reached as to what was to be included in each budget category.

This problem and attempts to rectify it was not of recent vintage. Knezevich noted that efforts to "stimulate the use of uniform financial records and reports in schools" (27, 1973, p. 167) had dated from 1909. The major stimulus was the "then current emphasis placed on efficiency and standardization, terms and concept lifted from industry" (31, 1956,

The 1972 publication, Financial Account (Handbook II, Revised), was either currently in use or under adoption by the majority of states at the writing of this study. It "modified functional-character accounting classifications" and "add[ed] precision to definitions and details for objects of expenditures and funds and for the coding of these" (27, 1973, p. 167).

This method of accounting recommended by the United States Office of Education had an important benefit, according to Charles S. Benson:

This type of budget format, indicating in much greater detail the distribution of resources by specific functions of the schools, allows administrators and other interested parties to see how flows of funds to particular programs have changed over time and, hence, to ask why the flows have changed in some special manner—or perhaps why flows have not changed in the light of announced objectives of the districts or in the face of facts known about special needs of certain students (6, 1975, p. 59-60).

Therefore, as Michael Babunakis stated, "the need for budget control and analysis . . . should no longer require debate" (2, 1982, p. 65), since, as he also stated, "it was the public, of course, that benefits from . . . budget-review procedures" (2, 1982, p. 66)!

Often asked of a study such as this, was how did the figures relate to those of national averages, such as those presented by the Educational Research Service. As Knezevich and Fowlkes noted, at times it was almost impossible to compare averages of a nation with the local situation because of a lack of agreement as to terminology (28, 1960, p. 153). This was also a problem in this study. The positions that
were included in the categories presented by the E.R.S. are slightly
different than what was included in particular categories for this
study. Therefore, comparisons between national averages and the
results of this limited study may be in error and possibly lead to
false conclusions by the reader.

The Consumer Price Index and Inflation

"Both the producers and consumers of education are seriously
affected by inflation" (22, 1983, p. 1). The same was true of school
districts and their finances. To complete this study and "to preserve
the purchasing power of . . . institutions, it is first necessary to
measure the rate of inflation" (22, 1983, p. 1).

D. Kent Halstead, in his book Inflation Measures for Schools and
introduced his concept of a School Price Index, similar to the Consumer
Price Index. However, this index as he presented it, was inappropriate
to this study, as the base year of 1975 was too late and the cut-off
year of 1982 was too early for use in the present study. He did note
that "[d]uring this 7-year span, the CPI and the SPI paralleled each
other" (22, 1983, p. 132). Therefore, it would have been appropriate
to use the CPI to measure the rate of inflation for the years of this
study.

The Consumer Price Index "is a measure of the average changes in
prices over time in a fixed market basket of goods and services" (44,
1984, p. 104). To get the CPI, price changes for the various items or
services were averaged together from 85 urban areas. They were then
compared to the total from both the previous year and from the
reference year of 1967, which equaled 100.0. Therefore, an increase of
150 percent would have been shown as 250.0. Also, the increase would
have been shown in dollar figures, such as $10 in 1967 would have
equaled $25.00 in the year we were studying.

There were two different ways that the CPI was presented. The
first was the seasonally-adjusted change. This method eliminated "the
effect of changes that normally occur at the same time and in the same

The second method was the non-adjusted data. This was for data
that was "used extensively for escalation purposes" (44, 1984, p. 105),
such as this study. The figures to be used in this study were 135.5 in
September of 1973 and 310.7 in June of 1984 (January 1967 = 100.0).

Organizational Growth

Organizational growth has been defined as the "change in an
organization's size when size is measured by the organization's
membership or employment" (39, 1965, p. 451).

Literature searches for material on organizational growth
resulted in very few current pieces of work, either in the educational
or business world. This fact was acknowledged by Richard H. Hall. He
stated very clearly that "[T]here has been very little research on the
growth of organizations" (21, 1972, p. 134).

Both Chester Barnard and Anthony Downs believed that "all
organizations have inherent tendencies to expand" (16, 1967, p. 16).
One question came to mind. What possible reasons were there for
organizations to grow? William H. Starbuck, in an article in James
March's book Handbook of Organizations (Chicago: Rand McNally and
Company, 1965) partially answered the question. He acknowledged that "growth is not spontaneous" (39, 1965, p. 453). He further believed that this growth was "the consequence of decisions . . ." (39, 1965, p. 453). Starbuck listed ten specific reasons (seven of which pertained, either directly or indirectly, to non-profit organizations, such as schools). The original ten reasons were:

1. Organizational self-realization (trying to accomplish better what the organization is attempting to do)
2. Adventure and risk (the desire for new experiences)
3. Prestige, power, and job security
4. Executive salaries (salaries rise exponentially as organizational size increases)
5. Profit
6. Costs
7. Revenue
8. Monopolistic power
9. Stability

Of the seven that pertain to non-profit organizations, the first was the concept of "organizational self-realization" (39, 1965, p. 455). There were two approaches to this concept. First was the view that organizations expand to justify themselves and to provide some service to the consumers. Some of the reasons that dealt with self-realization in this context were

a) customers demand complete service; b) firms attempt to master their technologies; c) research laboratories develop products outside the existing product lines; . . . e) if firms do not expand, they contract; they cannot stand still (39, 1965, p. 454).

The second approach in self-realization was a cynical view of self-realization. Starbuck quoted J. K. Galbraith, writing that there might have been a "tendency to create organizations on the basis not of need but of plausibility" (39, 1965, p. 454-455).
A second explanation provided by Starbuck was "Adventure and Risk." He stated that "[O]rganizations may grow because executives like to gamble on new activities" (39, 1965, p. 455). Secondly, there was the idea that an executive would be motivated by an urge to "'play the game' for its own sake" (39, 1965, p. 455). Thirdly, Starbuck felt the reason most "persuasive . . . is the avoidance of boredom" (39, 1965, p. 455).

Thirdly, Starbuck suggested "Prestige, power, and job security." This was a three part concept. First, there was a measure of social prestige by "the achievement of a successful expansion" (39, 1965, p. 455). Also, there was a measure of prestige resulting from the increase in the number of subordinates that a superior had under his/her control. Secondly, there was a perceived amount of power over subordinates. In other words, more subordinates results in more power. The third sub-concept, job security, was the belief that in times of trouble, "subordinates [are] more expendable than their superiors" (39, 1965, p. 455). A related statement on this entire concept came from C. Northcote Parkinson, who wrote that "[A]n official wants to multiply subordinates, not rivals" (33, 1957, p. 4).

The next reason given by Starbuck was "Executive salary." He made the implication that, based on a study by D. R. Roberts, an executive "to increase his salary, . . . should be more interested in increasing the size of his firm" (39, 1965, p. 456). Further, O. E. Williamson "constructed a model of the firm in which management expanded itself in order to increase its salary" (39, 1965, p. 456).
Fifthly, Starbuck stated that the "cost per unit decreases as the size of the organization increases, assuming that output also increases" (39, 1965, p. 457). This was the reason for the next concept — "Cost". Starbuck further related an idea that the "cost" concept enabled an organization to hire the best specialists and to fully utilize their talents. In other words, by increasing the number of personnel and their costs, the "random variables" would be cancelled out and the expected results of the organization attained.

Starbuck also believed that "Stability" and the quest for it was a factor in organizational growth. As he stated, "[t]he desire for stability may be one of the most important considerations . . ." (39, 1965, p. 463). He pointed out that "large organizations tend to face more stable environments than do small ones . . ." (39, 1965, p. 463). In other words, "work loads are more balanced and scheduling is less painful" (39, 1965, p. 463).

Lastly, there was the concept and reason of "survival" itself. Simply stated, "[t]he importance of survival to an organization cannot be overstated . . ." (39, 1965, p. 463). When survival was threatened, a large organization was more likely to weather the crisis than a smaller one. A mistake could overwhelm a small organization, while the same mistake would have been covered by a "cushion of error" of a large organization. Secondly, larger organizations were able to hire more experienced personnel, thus the new people were able to bring more knowledge about possible problems that might occur and possible solutions.
There were several possible consequences of organizational growth noted by Richard H. Hall. They included the fact that growth brought new people into the organization. These people "come in at all levels and with a variety of experience, expertise, motivations, and desires for the organization and themselves" (21, 1972, p. 135). Based on this fact, one would see how they would have disrupted "existing patterns of interaction and communication" (21, 1972, p. 135). As these people fit themselves into both formal and informal groups, they alter "existing social relationships" (21, 1972, p. 135). This fact would be disturbing, especially to older, more established employees. Their "power arrangements are . . . distorted and new alignments emerge" (21, 1972, p. 135). Thus the organization faced a situation of "setting the 'new guard' versus the 'old guard'" (21, 1972, p. 136).

Secondly, and as a consequence, "communication patterns between the groups are often blocked or nonexistent" (21, 1972, p. 136). If the structure of the organization made communication vital and necessary, this fact of blocked or nonexistent communication was "clearly dysfunctional" (21, 1972, p. 136).

Next, an organization could be faced with a situation of increased formalization. This fact could lead to a decrease in cooperation between both groups and individuals. With formalization also came a situation of increased routinization. With routinization could come boredom, one of the causes for further growth, thus compounding the situation.

Lastly, growth engendered complexity. This situation of complexity could have led to a stressful situation for employees and
one of depersonalization. The response to these situations by
individual members of the organization were as varied as the
individuals involved. Some liked these situations and responded well
to them. Others reacted negatively by either actually working against
the situation or physically (or mentally or emotionally) withdrawing
from the organization.

Chester I. Barnard, a major theorist on organizations and
management, noted that all organizations had an "innate propensity
. . . to expand" (3, 1968, p. 159). His Theory of Incentives involved
the maintenance of those incentives, including those related to
"prestige, pride of association, and community satisfaction, calls for
growth, enlargement, [and] extension" (3, 1968, p. 159).

Barnard also noted that growth "seems to offer opportunity for
the realization of all kinds of active incentives" (3, 1968, p. 159). Paradoxically, Barnard also noted that the "overreaching which arises
. . . is the source of destruction of organizations otherwise
successful, since growth often so upsets the economy of incentives,
through its reactions upon the effectiveness and efficiency of
organization" (3, 1968, p. 159).

How did all these facts affect bureaucracies? Max Weber, a
German sociologist, was "the first to attempt a systematic theory of
bureaucratic organization" (40, 1961, p. 10). He listed a set of
criteria for the "fully developed bureaucratic form" (40, 1961, p. 11). Modern bureaucracies have changed from previous models as a result of
increased specialization. As Thompson noted, "[O]rganizations have
grown in size because they must be able fully to employ the specialists...

Anthony Downs postulated several hypotheses that involved the growth of bureaucracies (or bureaus as he referred to them). They included:

1. It is the purposeful agitation of men specifically interested in promoting a given program that generates the splitting off of new bureaus from existing ones, or new sections within a bureau from existing sections.
2. As a bureau grows larger, the average level of talent therein initially rises and then declines.
3. All organizations have inherent tendencies to expand.
4. The expansion of any organization normally provides its leaders with increased power, income, and prestige; hence they encourage its growth.
5. Growth tends to reduce internal conflicts in an organization.
6. The incentive structure facing most officials provides much greater rewards for increasing expenditures than for reducing them.
7. Bureaus threatened with drastic shrinkage or extinction because of the curtailment of their original social functions will energetically seek to develop new functions that will enable them to survive with as little shrinkage as possible (16, 1967, p. 263-264).

Blau and Scott noted that "structural growth by its very nature involves increasing complexity" (4, 1962, p. 225). They based this belief on a conclusion by Kenneth E. Boulding in his "Principle of Non-Proportional Change." This principle, simply stated, said "since the rates of growth of the various parts of an organization are not proportional, growth always entails internal adjustment and change" (4, 1962, p. 225).

They also noted that many observers of bureaucratic growth decried the "trend toward larger administrative overhead in organizations as indicative of overbureaucratization" (4, 1962, p. 225).
They also noted that "Parkinson has satirized the presumably parasitic character of administrative personnel . . . suggesting that the less work there is in an organization, the greater are the increases in its administrative staff" (4, 1962, p. 225).

Barnard's Theory of Incentives and the maintenance of those incentives (as noted previously) were, as Barnard noted, "the basic, and . . . the legitimate reason for bureaucratic aggrandizement in corporate, governmental, labor, university, and church organizations everywhere observed" (3, 1968, p. 159).

Several contemporary authors also wrote about overstaffing and organizational growth. Peter Drucker noted in his book The Effective Executive that overstaffing often resulted in the wastage of time. He felt that overstaffing was much more prevalent in organizations than understaffing. He believed that "the work force that is too big for effectiveness" was "much more common" (17, 1967, p. 43). In this type of staffing situation, "[P]eople get into each other's way. People have become an impediment to performance, rather than the means thereto" (17, 1967, p. 43).

Thomas J. Peters and Robert H. Waterman, Jr., in their national best-seller In Search of Excellence, attempted to show the consequences of growth and complexity in the chapter entitled "Simple Form, Lean Staff." They noted that "[A]long with bigness comes complexity, unfortunately" (35, 1982, p. 306). As companies grow and become more complex, they design more "complex systems and structures" (35, 1982, p. 306). In doing so, they have hired even "more staff to keep track of all this complexity, and that's where the mistake begins" (35, 1982,
They wrote that to make an organization work, things must be kept understandable and simple.

In Peters and Waterman's "Form for the Future" (speaking of organizational structure), one of their three "pillars" was the "entrepreneurial pillar" (35, 1982, p. 315). They firmly believed that the "heart" of this pillar was the concept of "small is beautiful" (35, 1982, p. 315). Furthermore, they noted that "smallness is viewed as a requisite for continual adaptiveness. The cost is occasionally some efficiency: but as we have seen time and again, the efficiency advantage is usually vastly underrated" (35, 1982, p. 315).

They also felt that the excellent organizations were "quite flexible in responding to fast-changing conditions . . ." (35, 1982, p. 308). In other words, the excellent organizations were adaptable. According to Peters and Waterman, that could only result from a belief in "small is beautiful." On the other side of the coin, they noted that bigness, which caused complexity, also caused "the lethargy and inertia that makes too many companies unresponsive" (35, 1982, p. 121).

Perhaps it was best stated by Victor A. Thompson, who wrote that

The organization grows in size and acquires a complex structure of 'bureaus' of specialized people. A greater and greater proportion of the organization's total personnel consists of people performing these new functions or specialities, with a smaller and smaller proportion of people performing physical production programs (40, 1961, p. 35).

How did education and the educational bureaucracy compare to the ideas and concepts presented in this discussion of bureaucratic and organizational growth? Did the educational establishment identify with Victor Thompson's statement or did it subscribe to Peters and
Waterman's concept of "Simple Form, Lean Staff" and the related concept of "simple is beautiful"? This question was the "heart" of this study. However, before any data could be gathered, it was deemed important to investigate what the literature on the growth of the educational organization had said. Thus, what follows was a review of that literature.

First of all, Stephen J. Kerr of Columbia University, noted that "[I]nformation about the relative positions of generalist and specialist educators in America today is not easy to find" (25, 1983, p. 636). The major "culprit" in this situation, according to Kerr, was the fact that "professional ethics require the presentation of a 'united front' to the public" (25, 1983, p. 636).

During the decade of the 1970's, American schools and the educational bureaucracy was "marked by a rapid increase in the number of specialized educators" (25, 1983, p. 629). Michael W. Kirst noted that the number of instructional specialists increased at a 378% rate while the number of actual classroom teachers increased only 42% over the same period.

Kirst felt that this situation of growth was the result of societal problems giving birth to reform programs which required additional specialists. He also believed that "[T]his reform-by-addition strategy has unquestionably peaked and will not be expanded in the 1980's" (26, 1982, p. 72). Further, he wrote that the situation would even have reversed.

Arthur Costa and Charles Guditus noted that the number of districtwide instructional supervisors had steadily decreased, somewhat
in support of Kirst's contention that there would be a contraction of specialist services.

However, there appeared to be a contradiction in authors' views. In a "Critical Issues Report," the American Association of School Administrators noted that the number of specialists had increased over the period of 1968-1978, as well as the number of instructional personnel overall (a 13% increase), while the number of pupils actually decreased by 5 percent over the same period of time.

Kerr felt that the increased specialization was "typical of how occupations seek to enhance their professional status and thereby gain greater control over their work" (25, 1983, p. 629).

Kerr also identified two groups of specialists in the schools who had increased their numbers (according to Kerr). The first group he identified as "special-child educators" (25, 1983, p. 360). These specialists "focus on a particular subgroup of children who are seen to require a different, special type of instruction" (25, 1983, p. 360). This category included special education specialists and subject-matter specialists.

The second category he termed "consultants." He noted that "[T]hese educators are not 'teachers' in the traditional sense of the word" (25, 1983, p. 360). They rarely instruct students. They usually deal with "teachers, school administrators, other consultants, parents, or representatives of community organizations concerned with youth" (25, 1983, p. 360). This category included counselors, nurses, psychologists, librarians, curriculum specialists and supervisors, demonstration teachers, etc.
There were several factors that contributed to the rise of specialists as compared to generalist educators. Or, as Kerr noted, the "increase [of] the number of educational specialists relative to the number of general classroom teachers within the national population of teachers as a whole" (25, 1983, p. 632).

The first factor noted by Kerr was the rise of "entitlement social programs" (25, 1983, p. 631). Various pressure groups rose to demand specialized services. The major example was PL 94-142, the handicapped education law passed in the early 1970's. Other forces included bilingual education and multi-cultural education proponents.

The second factor was demographic. With the decline of pupils in American schools, less general classroom teachers were needed. Also, with the situation that many districts had to hire educational specialists to deal with the "entitlement social programs," it left even less room for the generalist teacher. As Kerr noted, "[T]he practical result of these changes has been fewer openings for general classroom teachers and more openings for specialists" (25, 1983, p. 632).

Many seem to have felt that one of the causes for the increased number of educational specialists had been the rise of federal funds and the attached federal programs for individual school districts. To verify this was beyond the scope of this study, however mention was made in a later chapter about the rise or decline in federal funds to the participating districts in this study.

Thus, as the literature indicated, there was a contradiction in whether the number of educational specialists had declined or grown
over recent years. Were school districts becoming more bureaucratized by the increase of specialists, or were they following Peters and Waterman's precept of "small is beautiful" by limiting or possibly reducing the number of educational specialists? Hopefully this study would partially answer this question on a limited basis.

Selected Bibliography


CHAPTER THREE

Research Design

Chapter Three included the identification of the research sample, a description of the types of data used for analysis, and a description of the computations that were included in the data analysis and interpretation.

Procedure

The first step in this process was the identification of the states that were to be included in the sample. The exploratory nature of the study to determine whether any fiscal-personnel patterns emerged over the ten year period allowed the use of a limited sample. The western states of California, Nevada, New Mexico, Colorado, and Arizona were selected for logistical convenience and because a preliminary review of the literature did not reveal significant differences in staffing between western school districts and the remainder of the American school district population.

Next, Patterson's American Education 1984 was utilized to determine and define the population that met all of the geographical and size requirements stated in Chapter One. This source also produced the necessary addresses and names of the personnel responsible for the budget documents in each district.
After the districts were identified, letters were sent to the responsible budget directors of 42 districts (see Appendix A). Of those twenty-four districts that responded, nineteen returned state budget reports which were useless for this study. Second letters were sent out to these responding districts, as well as phone calls made as follow-ups. These produced the desired response and budget documents, and the eight districts were selected from those on the parameters of large and small districts as defined in the Limitations section of Chapter One. The selection was done randomly, with the names of four large and four small districts being drawn from boxes that contained all the names of the twenty-four districts.

Due to the sensitive nature of the data, the districts were assured of anonymity. Therefore, the names of the districts as shown in the study are fictitious and can in no way be related to the names of the actual participating districts.

After the budgets for 1973-1974 and 1983-1984 were secured, the average daily membership, total budget expenditures and per A.D.M. expenditures were computed for each budget year for each district.

The next step was to compute the cost for all certified personnel in actual numbers, actual dollars costs, percentage of total expenditures, and per A.D.M. costs. Lastly, a staff-pupil ratio was calculated.

Further, this total certified personnel was broken down into the different sub-groupings. These subgroups included District Administrators, Building Administrators, Classroom Teachers, and Specialists. Again, each of these categories were computed on the
basis of actual number of positions, actual dollar costs, percentage
of total expenditures, per A.D.M. costs and a category-pupil ratio for
each district, and for each budget year.

The next step involved the interpretation of the data analysis.
This involved the comparing of each of the eight districts, the average
for the large districts, the average for the small districts, and the
average for all eight of the districts.

These comparisons consisted of examining the data analysis in
terms of the questions and sub-questions involved in the "Statement of
the Problem" from Chapter One. They included whether there was any
change in the percentage of the budget spent on certified staff, per
A.D.M. costs for all certified staff, the actual number of specialists,
the specialist-teacher ratios, the teacher-pupil ratios, and the
specialist-pupil ratios. The last part of the data interpretation
involved the use of the Consumer Price Index. Utilizing this figure,
a comparison was made between what the districts actually spent on
each category of certified personnel and what the spending should have
been, if one included the inflation rate (as measured by the C.P.I.).
The base year of the C.P.I. for this study was 1967, since the Federal
Government utilized that date as their base year.

Description of the Data Analysis

There were eight different figures presented for each district
for each of the budget years. A brief description of each and how each
was determined or computed follows.

1. A.D.M. — the total number of students enrolled in the district
   at a specified point in time. In all the budgets, this
figure was clearly presented and required no separate computation.

2. Total Expenditures — the total amount of money budgeted for all of the different expenditure classifications. Again, in all the budgets, this was identified and required no additional computations.

3. Total Expenditure Per A.D.M. — the total dollar amount of budgeted expenditures per pupil registered at a specific date. This amount had to be computed using numbers 1 and 2 above. To arrive at this figure, number 2 was divided by number 1 (Total Expenditures divided by A.D.M.). (See Figure 1.)

\[
\frac{\text{Total Expenditures}}{\text{A.D.M.}} = \text{Total Cost Per A.D.M.}
\]

Figure 1

Formula for Total Cost Per A.D.M.

4. Actual Number — the actual number of positions in a specific category, such as "Classroom Teacher" or "Building Administrator." This figure was computed by totalling the number of positions noted in the line-item budgets for a specific group, or in some cases, accepting the figures provided by the particular district's personnel office.

5. Actual Dollar Costs of a Group — the total dollar amount spent on a specific group of certified employees. This figure was
computed utilizing the line-item budget and adding the costs for the actual number of personnel in the particular classification (number 4).

6. Percentage of Total Expenditures — the percentage of the total expenditure package that was spent on the particular group. This figure was computed by dividing the actual dollar costs of a group (number 5) by the actual total expenditure of the district (number 2). (See Figure 2.)

\[
\frac{\text{Total Expenditure of Group}}{\text{Total Expenditure of District}} = \text{Percentage of Expenditures}
\]

Figure 2

Formula for Percentage of Expenditure

7. Group Costs Per A.D.M. — the cost per pupil for a specific group of employees. These groups included District Administrators, Building Administrators, Classroom Teachers, and Specialists. This amount was arrived at by multiplying the percentage arrived at in number 6 by the total cost per A.D.M. computed in step number 3 above.

8. Staff-Pupil Ratio — the ratio of one staff member per a specific number of pupils. This amount was expressed as a ratio of one staff member for every "x" number of pupils. To compute this figure, number 1 (Total A.D.M.) was divided by the actual number of employees in a certain classification (number 4). (See Figure 3.)
A.D.M. \[\frac{\text{Actual Number of Personnel}}{\text{Staff-Pupil Ratio}}\] = Staff-Pupil Ratio

Figure 3

Formula for Staff-Pupil Ratio

Description of the Data Interpretation

Data for Tables 17 through 22 came directly from the data analyses shown in Tables 1 through 16. In addition, basic mathematical computations involving the determination of the percentages of increases or decreases for each district and the district averages were computed and included in Tables 17 through 22.

The next series of five tables reflected the actual per A.D.M. costs for each of the groups of certified employees (Total, District Administrators, Building Administrators, Classroom Teachers, and Specialists) for both of the school years. Using the actual dollar costs from 1973-1974, a figure was computed using the C.P.I. Inflation rate to determine what the per A.D.M. costs in 1983-1984 should have been, when inflation was computed in. This figure was then compared to the actual dollar cost in 1983-1984 for each category to arrive at how much the district over-spent or under-spent. The formulas involved a ratio of the consumer price indexes for September, 1973 and June, 1984 that were compared to the actual spending in 1973-1974 and an unknown quantity (see Figure 4). The result was then subtracted from the actual cost in 1983-1984. A negative number represented
under-spending, while a positive number showed over-spending. The ideal situation would show an answer of zero.

$$\frac{\text{C.P.I. (84)}}{\text{C.P.I. (73)}} = \frac{X \text{ (Adjusted Cost)}}{\text{Cost (73)}} = \text{C.P.I. Adjusted Cost}$$

Figure 4

Formula for C.P.I. - Adjusted Cost
CHAPTER FOUR

Data Analysis and Interpretation

Data Analysis

Tamarus School District

The first district was the Tamarus School District. In 1973-1974, it had an A.D.M. of 6,600 with a total expenditure of $12,646,963. These figures computed to an amount of $1,916.20 per pupil in total expenditures.

Of its total personnel, 380.58 were certified. Four were District Administrators, 15 were Building Administrators, 312 were Classroom Teachers, and 48.58 were Specialists.

Total certified staff costs came to $6,871,776. The totals for the different groups included District Administrators with $133,513, Building Administrators at $399,280, Classroom Teachers costing $5,498,841, and the Specialists at $840,142.

In that particular year, 54.33 percent of their total expenditures went for certified personnel costs. Of this total, District Administrators represented 1.05 percent of the total, Building Administrators with 3.16 percent, Classroom Teachers were allocated 43.48 percent, and the Specialists garnered 6.64 percent of the total expenditure package.
The per A.D.M. costs reflected what had already been described. Of a total of $1,916.20 per pupil, $1,041.18 was spent on the certified staff. District Administrators cost $20.23 per pupil, while the Building Administrators ran $60.50 per pupil. Classroom Teachers cost the district $833.16 per student, and the Specialists staff computed costs of $127.29 per pupil.

The staff-pupil ratio showed an overall rate of one certified staff member for every 17.34 students. District Administrators had a ratio of 1:1,650 pupils, while the Building Administrators showed a ratio of one administrator for every group of 440 students. Classroom Teachers had a ratio of 1:21.15, and the number of Specialists worked out to one Specialist for every 135.86 pupils. (See Table 1.)

### Table 1

Computations for Tamarus School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>380.58</td>
<td>$6,871,776</td>
<td>54.33</td>
<td>$1,041.18</td>
<td>1:17.34</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>4</td>
<td>133,513</td>
<td>1.05</td>
<td>20.23</td>
<td>1:1,650</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>15</td>
<td>399,280</td>
<td>3.16</td>
<td>60.50</td>
<td>1:440</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>312</td>
<td>5,698,841</td>
<td>43.48</td>
<td>833.16</td>
<td>1:21.15</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>48.58</td>
<td>840,142</td>
<td>6.64</td>
<td>127.29</td>
<td>1:135.86</td>
</tr>
</tbody>
</table>
In 1983-1984, the Tamarus School District spent $23,377,918 on an A.D.M. of 5,268 students, for a per pupil average of $4,437.72.

This district had a total of 349.3 certificated personnel, with a breakdown of six District Administrators, 13 Building Administrators, 282.6 Classroom Teachers, and 47.7 Specialists.

The Tamarus School District spent $12,996,737 on its certified staff in 1983-1984. District Administrators totalled $353,295 and its Building Administrators had a cost of $627,168. Tamarus Classroom Teachers computed out a cost of $10,266,487, while the Specialists cost the district $1,749,787.

This district allocated 55.6 percent of its budget towards the certified staff costs. Broken down, the district spent $1.51 percent on the District Administration, 2.68 percent on its Building Administrators, 43.92 percent on the Classroom Teachers, and 7.49 percent on the Specialists.

Per A.D.M. costs also reflected growth from the previous ten years. The total per A.D.M. costs for the certified staff totalled $2,467.10. District Administration cost the district $67.06 per pupil, while the Building Administrators ran up a cost of $119.05 per student. The Classroom Teachers had a cost per pupil of $1,948.84, and the Specialists showed a cost of $332.15 per pupil.

The staff-pupil ratio for all of the certified staff was one member for every group of 15.08 students. District Administrators had a ratio of 1:878, while the Building Administrators showed a ratio of one administrator for every 405.23 students. The number of Classroom Teachers worked out to a ratio of 1:18.64, with the Specialists
showing a ratio of one Specialist for every group of 110.44 pupils.
(See Table 2.)

Table 2

Computations for Tamarus School District, 1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS $</th>
<th>%</th>
<th>PER A.D.M. COSTS $</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>349.3</td>
<td>12,996,737</td>
<td>55.60</td>
<td>2,467.10</td>
<td>1:15.08</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>6</td>
<td>353,295</td>
<td>1.51</td>
<td>67.06</td>
<td>1:878</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>13</td>
<td>627,168</td>
<td>2.68</td>
<td>119.05</td>
<td>1:405.23</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>282.6</td>
<td>10,266,487</td>
<td>43.92</td>
<td>1,948.84</td>
<td>1:18.64</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>47.7</td>
<td>1,749,787</td>
<td>7.49</td>
<td>332.15</td>
<td>1:110.44</td>
</tr>
</tbody>
</table>

Rochelle School District

The second district was the Rochelle School District. In 1973-1974, it had 26,799 pupils, with a total expenditure package of $26,467,923. The total per A.D.M. costs were $987.65.

This district had a total of 1,387.5 certified staff personnel. The total by groups included 15.5 District Administrators, 44 Building Administrators, 1,247 actual Classroom Teachers, and 81 Specialists.

The Rochelle School District spent, in actual dollars, $17,433,316 for their certified personnel. District Administrators totalled $320,850, with Building administration that cost the district $811,375.
The Classroom Teachers group had a total cost of $14,865,444, while the Specialists cost the district $1,435,647 for the year.

Percentage costs showed an overall figure of 65.86 percent spent on the certified staff. District Administrators accounted for 1.21 percent, while the Building Administrators showed a 3.07 percent share. Classroom Teachers costs worked out to a 56.16 percent share, with the Specialists claiming a 5.42 percent portion.

In this district, $650.47 represented the total per A.D.M. costs for the certified staff costs. Of this total, District Administration cost the district $11.95 per pupil, with the Building Administrators costing $30.32 per A.D.M. The Classroom Teachers share was $554.66 per pupil, while the Specialists ran up a cost of $53.53 per student.

The staff-pupil ratio showed an overall ratio of one certified staff member for every group of 19.31 pupils. District Administrators worked out to a ratio of 1:1,728.97. One Building Administrator for every group of 609.07 pupils represented their numbers. For the Classroom Teachers, the ratio stood at 1:21.49. Lastly, the ratio for the Specialists worked out to one Specialist per 330.85 pupils. (See Table 3.)
Table 3
Computations for Rochelle School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>1387.5</td>
<td>$17,433,316</td>
<td>65.86</td>
<td>$650.47</td>
<td>1:19.31</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>15.5</td>
<td>320,850</td>
<td>1.21</td>
<td>11.95</td>
<td>1:1,728.97</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>44</td>
<td>811,375</td>
<td>3.07</td>
<td>30.32</td>
<td>1:609.07</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>1247</td>
<td>14,865,444</td>
<td>56.16</td>
<td>554.66</td>
<td>1:21.49</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>81</td>
<td>1,435,647</td>
<td>5.42</td>
<td>53.53</td>
<td>1:330.85</td>
</tr>
</tbody>
</table>

In 1983-1984, the Rochelle School District had 18,979 pupils with a total expenditure package of $54,614,800. These figures resulted in a per A.D.M. expenditure of $2,877.64.

During that year, there were a total of 949 certified personnel. Of these, 10 were District Administrators and 23 were Building Administrators. Classroom Teachers accounted for 807 positions, leaving 109 Specialist positions.

Of the total dollar expenditure of $26,317,962 for certified staff costs, $385,047 was spent for District Administrators. Building Administrators cost the district $793,500, while the Classroom Teachers had a cost of $22,157,752. The Specialists cost the district the remaining $2,981,663.

The cost of certified personnel's share of the total district expenditures was represented by 48.19 percent. Of this total, District
Administrators had .71 percent, while the Building Administrators share stood at 1.45 percent. Classroom Teachers held a 40.57 percent share, and the Specialists had the last 5.46 percent share.

The per A.D.M. costs for the certified staff came to a total of $1,386.99 per pupil. District Administrators cost a per pupil rate of $20.29. The per pupil charge for the Building Administrators was $41.81, while the Classroom Teachers showed a per pupil charge of $1,167.49. The Specialists cost the district $157.10 per pupil.

Of the staff-pupil ratios, 1:20 represented the overall ratio for all of the certified staff. District Administrators had a ratio of one administrator to 1,897.9 pupils, while the Building Administrators showed a ratio of 1:825.17. The Classroom Teachers ratio stood at one teacher for every 23.52 pupils, as the Specialists had an overall ratio of 1:174.12. (See Table 4.)

Table 4
Computations for Rochelle School District, 1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>949</td>
<td>$26,317,962</td>
<td>48.19</td>
<td>$1,386.99</td>
<td>1:20.00</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>10</td>
<td>385,047</td>
<td>.71</td>
<td>20.29</td>
<td>1:1,897.9</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>23</td>
<td>793,500</td>
<td>1.45</td>
<td>41.81</td>
<td>1:825.17</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>807</td>
<td>22,157,752</td>
<td>40.57</td>
<td>1,167.49</td>
<td>1:23.52</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>109</td>
<td>2,981,663</td>
<td>5.46</td>
<td>157.10</td>
<td>1:174.12</td>
</tr>
</tbody>
</table>
Mayrum School District

The third district, the Mayrum School District, had 4,117 pupils in 1973-1974. Their total expenditure package was $3,839,670, averaging $932.64 per student.

This district had a total of 238.5 certified staff members during that school year. Of this total, two were District Administrators and three were Building Administrators. Classroom Teachers numbered 202, while the Specialists numbered 31.5.

Of the total budget, $2,018,855 was spent on the certified staff costs. District Administrators cost $38,940, while the Building Administrators costs came to $60,465. The Classroom Teachers total came to $1,594,645, as the Specialists costs ran $324,805.

In this district, 52.56 percent of the total expenditure package was spent on the certified staff. Of this total, 1 percent was allocated to the District Administration, while 1.57 percent went for Building Administration. Their Classroom Teachers expended 41.53 percent, and 8.46 percent went for the Specialists costs.

Per A.D.M. costs for certified staff costs totalled $490.37. The District Administrators cost the district $9.46 per pupil, while the Building Administrators had a per pupil cost of $14.69. Classroom Teachers showed a cost per A.D.M. of $387.33, as the Specialists computed a cost of $78.89 per student.

The overall staff-pupil ratio stood at one staff person per 17.26 pupils. District Administrators had a ratio of 1:2,058.5, with Building Administration showing a ratio of one administrator for every group of 1,372.3 students. The Classroom Teacher-pupil ratio showed a
rate of 1:27.18, with the Specialists having a ratio of one Specialist for every 130.7 pupils. (See Table 5.)

Table 5

Computations for Mayrum School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>238.5</td>
<td>$2,018,855</td>
<td>52.56</td>
<td>$490.37</td>
<td>1:17.26</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>2</td>
<td>38,940</td>
<td>1.00</td>
<td>9.46</td>
<td>1:2,058.5</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>3</td>
<td>60,465</td>
<td>1.57</td>
<td>14.69</td>
<td>1:1,372.3</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>202</td>
<td>1,594,645</td>
<td>41.53</td>
<td>387.33</td>
<td>1:27.18</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>31.5</td>
<td>324,805</td>
<td>8.46</td>
<td>78.89</td>
<td>1:130.7</td>
</tr>
</tbody>
</table>

In 1983-1984, the Mayrum School District had a total of 10,599 pupils, with a total budget of $27,627,595. This resulted in a total per A.D.M. cost of $2,606.62.

During that year, this district had a total of 579.5 certified employees. Of this total, 6.5 were District Administrators and 16 were Building Administrators. Classroom Teachers constituted 478.5 positions with 78.5 positions allocated for Specialists.

With a total expenditure of $12,706,960 for certified staff costs, $386,265 was allocated for the District Administrators. Building Administrators cost this district $512,200, while the Classroom Teachers ran up a cost of $10,136,603. The Specialists showed a cost of $1,644,892.
With a total of 45.89 percent of the total expenditures spent on certified staff positions, 1.4 percent was allocated to the District Administrators and 1.85 percent for the Building Administrators. Classroom Teachers consumed 36.69 percent of the total budget outlay, while the Specialists accounted for the final 5.95 percent.

The Mayrum School District spent $1,196.33 per pupil on all of the certified staff in 1983-1984. Of this total, $36.44 went to the District Administration, while $48.33 went for the Building Administrators. Per pupil costs for the Classroom Teachers came to $956.37 and the Specialists costs came to $155.19 per pupil.

The overall staff-pupil ratio stood at one certified staff member for each group of 18.29 students. The District Administrators had a ratio of 1:1,630.62, while the ratio for the Building Administrators computed to one administrator for every 662.44 pupils. The Classroom Teachers ratio worked out to 1:22.15 and the Specialists held a ratio of 1:135.02. (See Table 6.)

Table 6
Computations for Mayrum School District, 1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>579.5</td>
<td>$12,706,960</td>
<td>45.89</td>
<td>$1,196.33</td>
<td>1:18.29</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>6.5</td>
<td>386,265</td>
<td>1.40</td>
<td>36.44</td>
<td>1:1,630.62</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>16</td>
<td>512,200</td>
<td>1.85</td>
<td>48.33</td>
<td>1:662.44</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>478.5</td>
<td>10,136,603</td>
<td>36.69</td>
<td>956.37</td>
<td>1:22.15</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>78.5</td>
<td>1,644,892</td>
<td>5.95</td>
<td>155.19</td>
<td>1:135.02</td>
</tr>
</tbody>
</table>

A.D.M. - 10,599
TOTAL BUDGET - $27,627,595
PER A.D.M. COST - $2,606.62
Sposito School District

During the 1973-1974 school year, the Sposito School District spent a total of $7,734,809 on a total A.D.M. of 7,744 students. This averaged out to $998.81 per student.

This district had a total certified staff of 410. Of this total, five were District Administrators. Building Administrators totalled 18 positions, with Classroom Teachers accounting for 355 actual positions. Specialists accounted for the other 32 positions.

With a total certified cost of $4,960,222, the District Administration consumed $98,902, and $327,563 was the cost for the Building Administrators. The bill for the Classroom Teachers came to $4,153,405, while the expense for the Specialists cost the district $380,352.

Percentage figures for these employees showed that 64.14 percent of the total district expenditures were for the certified staff. District Administrators were allocated 1.28 percent, while the Building Administrators accounted for 4.24 percent of the total. The share allocated to the Classroom Teachers was 53.70 percent, while the Specialists held the last 4.92 percent.

The Sposito School District spent, on a per A.D.M. basis, $640.52 on the certified staff. Of this figure, $12.77 went to the District Administrators, $42.30 for the Building Administrators, Classroom Teachers computed an outlay of $536.34, and the Specialists cost the district $49.12 per pupil.

The staff-pupil ratio for all of the certified staff computed to one staff member for every 18.89 pupils. Contributing to this ratio
was the ratio of 1:1,548.5 for the District Administrators and a ratio of 1:430.22 for the Building Administrators. The Classroom Teachers presented a ratio of one teacher for every 21.81 students, while the Specialists revealed a ratio of 1:242. (See Table 7.)

Table 7
Computations for Sposito School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>410</td>
<td>$4,960,222</td>
<td>64.14</td>
<td>$640.52</td>
<td>1:18.89</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>5</td>
<td>98,902</td>
<td>1.28</td>
<td>12.77</td>
<td>1:1,548.5</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>18</td>
<td>327,563</td>
<td>4.24</td>
<td>42.30</td>
<td>1:430.22</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>355</td>
<td>4,153,405</td>
<td>53.70</td>
<td>536.34</td>
<td>1:21.81</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>32</td>
<td>380,352</td>
<td>4.92</td>
<td>49.12</td>
<td>1:242</td>
</tr>
</tbody>
</table>

In 1983-1984, the Sposito School District had 10,207 students, with a total expenditure of $22,726,268. This resulted in a per A.D.M. budget of $2,226.54.

Of the employees in the district, 626 were certified. District Administrators held six positions, while Building Administrators numbered 21. Classroom Teachers totalled 451 positions, with 148 Specialists.

For these 626 positions, $12,979,370 was expended. Of this total, $181,000 was allocated to the District Administrators. Building
Administration costs totalled $633,500, with Classroom Teacher costs amounting to $9,223,627. The Specialists had total costs of $2,941,243.

Of the total budget, 57.11 percent was allocated to certified costs. District Administration accounted for .79 percent, while the Building Administrator costs stood at 2.79 percent. Classroom Teachers consumed the largest percentage, 40.59 percent. The Specialists accounted for the last 12.94 percent.

The per A.D.M. costs for all certified costs amounted to $1,271.62. The portion allocated for District Administration was $17.73, while the Building Administrators cost the district $62.07 per pupil. The Classroom Teachers had a per A.D.M. cost of $903.66 and the Specialists showed a cost of $288.16 per student.

One certified staff member per 16.31 students represented the overall ratio for all certified staff. Contributing to this ratio were the District Administrators and their ratio of 1:1,701.12 and the ratio of one Building Administrator per 486.05 pupils. The Classroom Teacher-pupil ratio stood at 1:22.63, while the Specialists had a ratio of one Specialist to every 68.97 students. (See Table 8.)
Table 8
Computations for Sposito School District, 1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>626</td>
<td>$12,979,370</td>
<td>57.11</td>
<td>$1,271.62</td>
<td>1:16.31</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>6</td>
<td>181,000</td>
<td>.79</td>
<td>17.73</td>
<td>1:1,701.12</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>21</td>
<td>633,500</td>
<td>2.79</td>
<td>62.07</td>
<td>1:486.05</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>451</td>
<td>9,223,627</td>
<td>40.59</td>
<td>903.66</td>
<td>1:22.63</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>148</td>
<td>2,941,243</td>
<td>12.94</td>
<td>288.16</td>
<td>1:68.97</td>
</tr>
</tbody>
</table>

McNary School District

In 1973-1974, the McNary School District had a total budget of $83,872,172, with a student population of 76,724. These figures resulted in a per A.D.M. outlay of $1,093.17 for the year.

This district had a total of 4,029 certified staff members, with 40 District Administrators and 188 Building Administrators. Classroom Teachers held 3,329 positions, with 482 Specialists.

The total expense of $47,365,596 was spent on the certified staff during that school year in this district. Of this total, $955,035 was expended on the District Administrative costs and $3,787,386 on the Building Administrators. Classroom Teachers totalled $36,838,137 and the Specialists evidenced costs of $5,785,038.

This district spent 56.48 percent of its budget on certified staff. Of this, 1.14 percent went for District Administration, while
4.52 percent was for Building Administration. Classroom Teachers had a 43.92 percent share, and the Specialists shared the last 6.9 percent.

The McNary School District budgeted $617.35 per pupil for the certified costs. District Administrators expended $12.45 per pupil, while the Building Administrators were allocated $49.36 per student. Classroom Teacher costs came to $480.14, with $75.40 for the Specialists.

The certified staff-pupil ratio for the McNary School District in 1973-1974 was 1:19.04. Contributing was a ratio of one District Administrator for every 1,918.1 students and one Building Administrator for every group of 408.11 students. The Classroom Teachers had a ratio of 1:23.12, with the Specialists ratio presented as 1:159.18. (See Table 9.)

Table 9

Computations for McNary School District, 1973-1974

A.D.M. - 76,724
TOTAL BUDGET - $83,872,172
PER A.D.M. COST - $1,093.17

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4029</td>
<td>$47,365,596</td>
<td>56.48</td>
<td>$617.35</td>
<td>1:19.04</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>40</td>
<td>955,035</td>
<td>1.14</td>
<td>12.45</td>
<td>1:1,918.1</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>188</td>
<td>3,787,386</td>
<td>4.52</td>
<td>49.36</td>
<td>1:408.11</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>3319</td>
<td>36,838,137</td>
<td>43.92</td>
<td>480.14</td>
<td>1:23.12</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>482</td>
<td>5,785,038</td>
<td>6.90</td>
<td>75.40</td>
<td>1:159.18</td>
</tr>
</tbody>
</table>
In 1983-1984, this school district had a budget of $274,933,151 to spend on 75,298 pupils. This computed to a per A.D.M. cost of $3,651.27.

During that school year, there were 4,312.52 certified positions in the McNary School District, showing a distribution of 52.75 District Administrators, 205.42 Building Administrators, 3,145.35 Classroom Teachers, and 909 specialists.

The total dollar amount expended on these personnel totalled $129,969,857. District Administrators showed a cost of $2,669,642 and Building Administrators totalled $9,146,834. The Classroom Teachers had the largest share, $89,261,788. The Specialists had a total of $28,891,593.

The percentage spent on these positions came to 47.28 percent. Of this total, .97 percent went for District Administrator costs and 3.33 percent for the Building Administrators. Again, Classroom Teachers had the largest share, with 32.4 percent. The Specialists had the remaining 10.51 percent of the total expenditures.

For the certified staff the per A.D.M. cost was $1,726.08. Of this $35.45 was spent for District Administrators and $121.48 for Building Administrators. Classroom Teachers received $1,185.45 per pupil, while $383.70 went for the Specialists costs.

The overall certified staff-pupil ratio stood at 1:17.46, with the District Administrators showing a ratio of one administrator per 1,427.45 pupils. The Building Administrators had a ratio of 1:366.56 and the Classroom Teachers computed to one teacher for 23.94 students. Lastly, the Specialists had a ratio of 1:82.84. (See Table 10.)
Table 10

Computations for McNary School District, 1983-1984

A.D.M. - 75,298
TOTAL BUDGET - $274,933,151
PER A.D.M. COST - $3,651.27

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4312.52</td>
<td>$129,969,857</td>
<td>47.28</td>
<td>$1,726.08</td>
<td>1:17.46</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>52.75</td>
<td>2,669,642</td>
<td>.97</td>
<td>35.45</td>
<td>1:1,427.45</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>205.42</td>
<td>9,146,834</td>
<td>3.33</td>
<td>121.48</td>
<td>1:366.56</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>3145.35</td>
<td>89,261,788</td>
<td>32.47</td>
<td>1,185.45</td>
<td>1:23.94</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>909</td>
<td>28,891,593</td>
<td>10.51</td>
<td>383.70</td>
<td>1:82.84</td>
</tr>
</tbody>
</table>

Mountain Meadow School District

In 1973-1974, the Mountain Meadow School District had a student population of 663,452 and a total budget of $845,281,935. This resulted in a total per A.D.M. cost of $1,274.07 for the school year.

This district had 37,155 certified positions, with 188 District Administrators and 1,105 Building Administrators. Classroom Teachers totalled 23,817, while the Specialists held 3,045 positions.

Of the total expenditures, $458,005,643 was consumed by the certified staff. District Administrators had a cost of $6,690,864 and the Building Administrators ran up a cost of $30,101,550. The Classroom Teachers cost the district $362,366,369, with the Specialists adding a cost of $58,846,860.

The percentage of total expenditures spent on the certified staff came to 54.18 percent of the entire budget package. Of this total,
.79 percent was for District Administration and 3.56 percent for Building Administration. The Classroom Teachers held a 42.87 percent share, with the Specialists claiming the last 6.96 percent.

With the total per A.D.M. cost shown above, a share of $690.33 per pupil was spent on the certified staff. District Administrators presented a per A.D.M. cost of $10.09, while the Building Administrators cost the district $45.37 per student. The Classroom Teachers expended the largest share, $546.19 per pupil. The Specialists held a cost of $88.70 per student.

The Mountain Meadow School District had an overall ratio of 1:17.86 for all of the certified personnel. District Administrators showed a ratio of one administrator for every 3,529 pupils, while the Building Administrators computed a ratio of 1:600.41. The Classroom Teachers worked out to a ratio of one teacher per 27.86 students, with the Specialists claiming an overall ratio of 1:217.88. (See Table 11.)

Table 11

Computations for Mountain Meadow School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>37,155</td>
<td>$458,005,643</td>
<td>54.18</td>
<td>$690.33</td>
<td>1:17.86</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>188</td>
<td>6,690,864</td>
<td>.79</td>
<td>10.09</td>
<td>1:3,529</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>1,105</td>
<td>30,101,550</td>
<td>3.56</td>
<td>45.37</td>
<td>1:600.41</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>23,817</td>
<td>362,366,369</td>
<td>42.87</td>
<td>546.19</td>
<td>1:27.86</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>3,045</td>
<td>58,846,860</td>
<td>6.96</td>
<td>88.70</td>
<td>1:217.88</td>
</tr>
</tbody>
</table>
In 1983-1984, this district had a total expenditure of $2,007,219,308 with 558,453 pupils. These numbers resulted in a total per A.D.M. expenditure of $3,594.25.

For this school year, the district had 30,698.24 certified employees. Of this total, 677.03 were District Administrators and 1,211 were Building Administrators. Classroom Teachers numbered 20,918.47, while the Specialists totalled 7,891.74 positions.

The total cost for certified staff members amounted to a total of $902,073,293 for the year. Of this amount, District Administrators had a cost of $25,319,309, with Building Administrators having shown a cost of $55,271,311. The Classroom Teachers had a total cost to the district of $613,133,309 and the Specialists accounted for $208,349,364.

The percentage spent on the certified staff for the year was 44.94 percent of the total expenditure package. District Administrators accounted for 1.26 percent of the total and the Building Administrators were allocated 2.75 percent of the total budget. The Classroom Teachers share stood at 30.55 percent of the total budget, while the Specialists accounted for the last 10.38 percent.

In the Mountain Meadow School District $1,615.26 was the per A.D.M. costs for all of the certified staff. District Administrators held a cost of $45.29 per pupil, with the Building Administrators claiming a per A.D.M. cost of $98.84. The Classroom Teachers showed a cost of $1,098.04 per pupil, while the Specialists claimed the last $373.08 per student.
The overall certified staff-pupil stood at 1:18.19. District
Administrators had a ratio of one administrator for every 824.86
pupils, while the Building Administrators computed a ratio of 1:461.15.
The Classroom Teachers stood at one teacher per 26.7 students, as the
Specialists computed to one specialist per 70.76 students. (See
Table 12.)

Table 12

Computations for Mountain Meadow School District,
1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>30,698.24</td>
<td>$902,073,293</td>
<td>44.94</td>
<td>$1,615.26</td>
<td>1:18.19</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>677.03</td>
<td>25,319,309</td>
<td>1.26</td>
<td>45.29</td>
<td>1:824.86</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>1,211</td>
<td>55,271,311</td>
<td>2.75</td>
<td>98.84</td>
<td>1:461.15</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>20,918.47</td>
<td>613,133,309</td>
<td>30.55</td>
<td>1,098.04</td>
<td>1:26.7</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>7,891.74</td>
<td>208,349,364</td>
<td>10.38</td>
<td>373.08</td>
<td>1:70.76</td>
</tr>
</tbody>
</table>

Belvoir School District

In 1973-1974, the Belvoir School District had total expenditures
of $73,406,543 and a student population of 77,484. These figures
computed to a per A.D.M. cost of $947.38 for the school year.

This district had 3,249 certificated positions budgeted for
1973-1974. District Administrators numbered 32, with Building
Administrators totaling 180.5 positions. Classroom Teachers claimed 2,689 positions, with Specialists assuming the last 347.5 positions.

The total dollar amount spent for these positions came to $39,974,224. Of this amount, $693,555 was for the District Administrators and the Building Administrators cost the district $2,840,184. The Classroom Teachers showed a cost of $31,974,038, with the Specialists costing $4,466,447.

Overall, 54.48 percent of the total expenditures were spent on the certified staff. District Administrators accounted for .95 percent and the Building Administrators held a 3.87 percent share. The Classroom Teachers showed a 43.58 percent portion, while the Specialists expended the last 6.08 percent.

With a per A.D.M. cost of $515.91 for all of the certified staff, $8.95 was allocated for District Administrative costs per pupil and the Building Administrators claimed a cost, per student, of $36.66. A per pupil cost of $412.65 for Classroom Teachers and $57.64 for Specialists accounted for the last part of the total spent on certified staff.

The overall certified staff-pupil ratio computed to one staff member for every group of 23.85 students. Of these personnel, the District administrators showed a ratio of 1:2,421.38, while the Building Administrators held a ratio of one administrator per 429.27 students. The Classroom Teachers had a ratio of 1:28.82 and the Specialists showed one specialist to 222.98 pupils. (See Table 13.)
Table 13

Computations for Belvoir School District, 1973-1974

A.D.M. - 77,484
TOTAL BUDGET - $73,406,543
PER A.D.M. COST - $947.38

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3249</td>
<td>$39,974,224</td>
<td>54.48</td>
<td>$515.91</td>
<td>1:23.85</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>32</td>
<td>693,555</td>
<td>.95</td>
<td>8.95</td>
<td>1:2,421.38</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>180.5</td>
<td>2,840,184</td>
<td>3.87</td>
<td>36.66</td>
<td>1:429.27</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>2689</td>
<td>31,974,038</td>
<td>43.58</td>
<td>412.65</td>
<td>1:28.82</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>347.5</td>
<td>4,466,447</td>
<td>6.08</td>
<td>57.64</td>
<td>1:222.98</td>
</tr>
</tbody>
</table>

In 1983-1984, the Belvoir School District had a total expenditure of $209,341,443 with a student population of 88,356. These numbers computed a per A.D.M. cost of $2,369.30 for the year.

For this particular school year, this district showed 4,699.5 certified positions in the budget. Of this total, 65 were District Administrators and 218 were Building Administrators. Classroom Teachers held 3,289.5 positions, while the Specialists showed 1,127 positions budgeted.

The total amount budgeted for certified staff costs came to $116,177,007 for the year. A breakdown showed District Administrators accounted for $2,651,549 and the Building Administrators claimed $8,259,759 of the total. Classroom Teachers had, of the total, $80,012,582. Lastly, the Specialists claimed costs of $25,253,117.
During the 1983-1984 school year, 55.5 percent of the total expenditure package went to certified costs. District Administrators accounted for 1.27 percent while the Building Administrators were budgeted 3.95 percent of the total package. The Classroom Teachers still had the major share, 38.22 percent. The Specialists accounted for the last portion of 12.06 percent.

The per A.D.M. cost for all of the certified staff came to $1,314.96. Of this total, District Administrators cost the district $30.09 per pupil, while the Building Administrators showed a per A.D.M. cost of $93.59. The Classroom Teachers had a per student cost of $905.55, with the Specialists having a $285.74 per pupil cost.

One certified staff member per 18.8 students represented the overall certified staff-pupil ratio. District Administrators had a ratio of 1:1,359.32, while the Building Administrators computed to a ratio of one administrator for every group of 405.3 students. The Classroom Teachers had a ratio of 1:26.86 and the Specialist-pupil ratio stood at 1:78.4. (See Table 14.)

Table 14

Computations for Belvoir School District, 1983-1984

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4,699.5</td>
<td>$116,177,007</td>
<td>55.50</td>
<td>$1,314.96</td>
<td>1:18.8</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>65</td>
<td>2,651,549</td>
<td>1.27</td>
<td>30.09</td>
<td>1:1,359.32</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>218</td>
<td>8,259,759</td>
<td>3.95</td>
<td>93.59</td>
<td>1:405.3</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>3,289.5</td>
<td>80,012,582</td>
<td>38.22</td>
<td>905.55</td>
<td>1:26.86</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>1,127</td>
<td>25,253,117</td>
<td>12.06</td>
<td>285.74</td>
<td>1:78.4</td>
</tr>
</tbody>
</table>

A.D.M. - 88,356
TOTAL BUDGET - $209,341,443
PER A.D.M. COST - $2,369.30
West School District

In the last school district, the West School District, the total expenditure package was $66,508,555 during the 1973-1974 school year. Their student population stood at 86,459, with a per A.D.M. cost of $768.63.

During that year, there were 3,932.8 certified positions budgeted. Of this total, 34.3 were District Administrators and 162.5 were Building Administrators. Classroom Teachers accounted for 3,179.5 positions and Specialists held 561.5 positions.

The total amount spent on these positions came to $36,691,885 for the year. District Administrators cost the district $652,900, while the Building Administrators held a cost of $2,392,600. The Classroom Teachers computed a cost to the district of $29,442,216, with the Specialists showing costs of $5,777,901.

The percentage for all certified personnel costs came to 57.54 percent. District Administrators claimed a .98 percent share, while the Building Administrators share stood at 3.6 percent. Classroom Teachers computed a percentage of 44.27, with the Specialists claiming the remaining 8.69 percent of the total expenditure package.

The per A.D.M. costs for these positions totalled $442.23 for the school year 1973-1974. District Administrators cost the district $7.55 per pupil, while the Building Administrators showed costs of $27.65 per student. Classroom Teachers computed costs per A.D.M. of $340.26, with the Specialists costing the district $66.77 per pupil.

The certified staff-pupil ratio stood at 1:21.98 overall. District Administrators computed a ratio of one administrator for every
2,520.67 pupils, as the Building Administrators worked out a ratio of 1:532.06. The Classroom Teacher-pupil ratio showed at one teacher for every group of 27.29 pupils. Lastly, the Specialists had a ratio of 1:153.98. (See Table 15.)

Table 15
Computations for West School District, 1973-1974

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>3,932.8</td>
<td>$36,691,885</td>
<td>57.54</td>
<td>$442.23</td>
<td>1:21.98</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>34.3</td>
<td>652,900</td>
<td>.98</td>
<td>7.55</td>
<td>1:2,520.67</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>162.5</td>
<td>2,392,600</td>
<td>3.60</td>
<td>27.65</td>
<td>1:532.06</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>3,179.5</td>
<td>29,442,216</td>
<td>44.27</td>
<td>340.26</td>
<td>1:27.19</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>561.5</td>
<td>5,777,901</td>
<td>8.69</td>
<td>66.77</td>
<td>1:153.98</td>
</tr>
</tbody>
</table>

In 1983-1984, the West School District had a student population of 71,737.5, with a total expenditure package of $192,365,883. These figures presented a per A.D.M. cost of $2,665.37 for the school year.

This district had a total of 4,989.9 certified staff members for the year budgeted. This total included 36 District Administrators and 179 Building Administrators. Classroom Teachers totalled 2,869.2, while the Specialists claimed 1,905.7 positions.

The total dollar amount spent on these positions amounted to $102,569,200. Of this total, $1,475,800 was budgeted for the District
Administrators and $5,630,600 for the Building Administrators. Classroom Teachers claimed the largest share, $58,296,300, with the Specialists accounting for the last $37,166,500.

The percentage of the total expenditure package allocated to the certified staff cost came to 53.32 percent. District Administrators accounted for .77 percent of the budget, while the Building Administrators showed a 2.93 percent share. The Classroom Teachers held a 30.3 percent portion, while the Specialists accounted for the last 19.32 percent of the total expenditures.

The total per A.D.M. cost for all of the certified personnel came to $1,421.17 for the year. The District Administrators cost the district $20.45 per pupil, while the Building Administrators computed costs of $78.02 per student. The per A.D.M. cost for the Classroom Teachers stood at $807.74 and the cost for the Specialists came to a total of $514.97 per student.

The total certified staff-pupil for the year 1983-1984 stood at one staff member for each group of 14.38 students. The District Administrators computed a ratio of 1:1,992.71, with the Building Administrators showing a ratio of one administrator per 400.77 pupils. The Classroom Teacher-pupil ratio worked out to 1:25, while the Specialist-pupil ratio computed to one specialist for every 37.64 students. (See Table 16.)
Table 16
Computations for West School District, 1983-1984

A.D.M. - 71,737.5
TOTAL BUDGET - $192,365,883
PER A.D.M. COST - $2,665.37

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ACTUAL NUMBER</th>
<th>ACTUAL COSTS</th>
<th>%</th>
<th>PER A.D.M. COSTS</th>
<th>STAFF-PUPIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4,989.9</td>
<td>$102,569,200</td>
<td>53.32</td>
<td>$1,521.17</td>
<td>1:14.38</td>
</tr>
<tr>
<td>DISTRICT ADMIN.</td>
<td>36</td>
<td>1,475,800</td>
<td>.77</td>
<td>20.45</td>
<td>1:1,992.71</td>
</tr>
<tr>
<td>BUILDING ADMIN.</td>
<td>179</td>
<td>5,630,600</td>
<td>2.93</td>
<td>78.02</td>
<td>1:400.77</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>2,869.2</td>
<td>58,296,300</td>
<td>30.30</td>
<td>807.74</td>
<td>1:25.00</td>
</tr>
<tr>
<td>SPECIALISTS</td>
<td>1,905.5</td>
<td>37,166,500</td>
<td>19.32</td>
<td>514.97</td>
<td>1:37.64</td>
</tr>
</tbody>
</table>

Data Interpretation

The average percentage of total expenditures spent on the certified staff for all eight of the districts in 1973-1974 stood at 57.44 percent and 50.98 percent in 1983-1984. These figures represented an overall decrease in expenditures of 11.25 percent over the decade. The four small districts had a 59.22 percent share in 1973-1974 with a percentage for all certified personnel of 51.7 percent in 1983-1984, which resulted in a 12.7 percent decrease over the ten years. The budget share in the large districts was represented by 55.67 percent for the year 1973-1974, while 1983-1984 showed a 50.26 percent share. These figures resulted in a 9.72 percent decrease over the period studied.

Of the small districts, the Tamarus School District had 54.33 percent devoted to personnel in 1973-1974 and 55.6 percent in 1983-1984.
for all of the certified personnel expenditures. These figures worked out to a 2.34 percent increase. The Rochelle School District stood at 65.86 percent in 1973-1974 and 48.29 percent in 1983-1984. These figures represented a 26.83 percent decrease. The Mayrum School District had a total certified cost percentage of 52.56 percent in 1973-1974 and 45.89 percent in 1983-1984, which resulted in a 12.69 percent reduction over the decade. The last small district, the Sposito School District, computed a percentage of 64.13 percent for 1973-1974 and 57.11 percent in 1983-1984, a 10.95 percent decrease.

The first large school district was the McNary School District, with percentages of 56.48 in 1973-1974 and 47.28 in 1983-1984. These percentages showed a 16.29 percent decrease. The Mountain Meadow School District had percentages of 54.18 for 1973-1974 and 44.94 in 1983-1984, which resulted in a 17.05 percent decrease over the decade. The third district, the Belvoir School District computed percentages of 54.46 in 1973-1974 and 55.5 in 1983-1984. These numbers computed to a 1.91 percent increase. The West School District computed percentages of 57.54 in 1973-1974 and 53.32 in 1983-1984, which showed a 7.33 percent decrease. (See Table 17.)

The average per A.D.M. costs for all of the certified staff in 1973-1974 amounted to $636.05. The average for the following decade came to $1,549.94, a 143.68 percent increase. The small district average in 1973-1974 stood at $705.65 per pupil, while the average in 1983-1984 grew at a 123.98 percent rate, up to $1,580.51. The four large school districts showed a 168.22 percent increase over the decade, from $566.46 in 1973-1974 to $1,519.37 in 1983-1984.
Table 17
Comparisons of Percentage of Total Budget Spent on all Certified Staff, 1973-1974 vs. 1983-1984

<table>
<thead>
<tr>
<th>District</th>
<th>% 1973-1974</th>
<th>% 1983-1984</th>
<th>% Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamarus</td>
<td>54.33%</td>
<td>55.60%</td>
<td>+2.34%</td>
</tr>
<tr>
<td>Rochelle</td>
<td>65.86%</td>
<td>48.19%</td>
<td>-26.83%</td>
</tr>
<tr>
<td>Mayrum</td>
<td>52.56%</td>
<td>45.89%</td>
<td>-12.69%</td>
</tr>
<tr>
<td>Sposito</td>
<td>64.13%</td>
<td>57.11%</td>
<td>-10.95%</td>
</tr>
<tr>
<td>Average</td>
<td>59.22%</td>
<td>51.70%</td>
<td>-11.25%</td>
</tr>
<tr>
<td><strong>Large</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McNary</td>
<td>56.48%</td>
<td>47.28%</td>
<td>-16.29%</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>54.18%</td>
<td>44.94%</td>
<td>-17.05%</td>
</tr>
<tr>
<td>Belvoir</td>
<td>54.46%</td>
<td>55.50%</td>
<td>+1.91%</td>
</tr>
<tr>
<td>West</td>
<td>57.54%</td>
<td>53.32%</td>
<td>-7.33%</td>
</tr>
<tr>
<td>Average</td>
<td>55.67%</td>
<td>50.26%</td>
<td>-9.72%</td>
</tr>
<tr>
<td>Average (8)</td>
<td>57.44%</td>
<td>50.98%</td>
<td>-11.25%</td>
</tr>
</tbody>
</table>
Of the four small districts, the Tamarus School District showed a per A.D.M. cost growth from $1,041.18 in 1973-1974 to $2,467.10 in 1983-1984, a 136.95 percent increase. The Rochelle School District showed a 113.23 percent increase over the decade, from $650.47 in 1973-1974 to $1,386.99 in 1983-1984. An increase of 143.97 percent represented the growth in per A.D.M. costs for the Mayrum School District. In 1973-1974, they had a cost of $490.37 for the certified staff and a cost of $1,196.33 in 1983-1984. The smallest growth shown in the small districts was the 98.53 percent shown in the Sposito School District. In 1973-1974, they spent, per A.D.M., $640.52 on their certified staff and $1,271.62 in 1983-1984.

The first large district, the McNary School District had a per A.D.M. cost of $617.35 in 1973-1974 and $1,726.08 in 1983-1984, a 179.5 percent increase over the decade. An increase of 133.98 percent represented the growth shown by the Mountain Meadow School District over the 10 year span. They grew from $690.33 in 1973-1974 to $1,615.26 in 1983-1984. The Belvoir School District in 1973-1974 had a cost of $515.91 and a per A.D.M. cost for all of its certified staff of $1,314.96 in 1983-1984. These figures represented a 154.88 percent increase. The last school district, the West School District, showed a 221.36 percent increase over the decade studied, from $442.23 in 1973-1974 to $1,421.17 in 1983-1984. (See Table 18.)

The average actual number of the Educational Specialists in all eight of the districts came to 578.64 positions in 1973-1974 and 1,527.08 in 1984-1984, a 163.91 percent increase over the ten year span. The small school districts experienced an average increase of
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamarus</td>
<td>$1,041.18</td>
<td>$2,467.10</td>
<td>+136.95%</td>
</tr>
<tr>
<td>Rochelle</td>
<td>650.47</td>
<td>1,386.99</td>
<td>+113.23%</td>
</tr>
<tr>
<td>Mayrum</td>
<td>490.37</td>
<td>1,196.33</td>
<td>+143.97%</td>
</tr>
<tr>
<td>Sposito</td>
<td>640.52</td>
<td>1,271.62</td>
<td>+98.53%</td>
</tr>
<tr>
<td>Average</td>
<td>705.64</td>
<td>1,580.51</td>
<td>+123.98%</td>
</tr>
<tr>
<td><strong>Large</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McNary</td>
<td>$617.35</td>
<td>$1,726.08</td>
<td>+179.60%</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>690.33</td>
<td>1,615.26</td>
<td>+133.98%</td>
</tr>
<tr>
<td>Belvoir</td>
<td>515.91</td>
<td>1,314.96</td>
<td>+154.88%</td>
</tr>
<tr>
<td>West</td>
<td>442.23</td>
<td>1,421.17</td>
<td>+221.36%</td>
</tr>
<tr>
<td>Average</td>
<td>566.46</td>
<td>1,519.37</td>
<td>+168.22%</td>
</tr>
<tr>
<td><strong>Average (8)</strong></td>
<td>$636.05</td>
<td>$1,549.94</td>
<td>+143.68%</td>
</tr>
</tbody>
</table>
only 98.47 percent, from 48.27 positions in 1973-1974 to 95.80 in 1983-1984. The large school districts grew in actual number of Specialists from 1,109 positions in 1973-1974 to 2,958.36 in 1983-1984, a 166.76 percent increase over the same time period.

Of all the districts, only the Tamarus School District experienced a decrease in the number of Specialists, from 48.58 in 1973-1974 to 47.7 in 1983-1984, a 1.81 percent decrease. The Rochelle School District showed 81 positions in 1973-1974 and 109 in 1983-1984. These numbers computed to an increase of 34.57 percent. The Mayrum School District computed the largest increase of all the small districts, a 149.21 percent growth. The went from 31.5 Specialists in 1973-1974 to 78.5 in 1983-1984. The last small district, the Sposito School District, budgeted 32 Specialists in 1973-1974 and 148 in 1983-1984, an overall increase of 362.5 percent over the ten years, the largest increase of all eight districts studied.

Of the large school districts, the McNary School District had the smallest increase, only 88.59 percent over the decade. They went from 482 Specialists in 1973-1974 to 909 in 1983-1984. The Mountain Meadow School District grew in number of Specialists from 3,045 in 1973-1974 to 7,891.74 in 1983-1984, a 159.17 percent increase. The Belvoir School District had a 224.32 percent increase over the 10 year span, from 347.5 positions in 1973-1974 to 1,127 positions in 1983-1984. The last district, the West School District, had the largest increase of all the large districts, 239.4 percent. It grew from 561.5 positions in 1973-1974 to 1,905.7 positions in 1983-1984. (See Table 19.)
Table 19
Comparisons of Actual Number of Specialists, 1973-1974 vs. 1983-1984

<table>
<thead>
<tr>
<th>District</th>
<th>Number 1974-1974</th>
<th>Number 1983-1984</th>
<th>% Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamarus</td>
<td>48.58</td>
<td>47.7</td>
<td>-1.81%</td>
</tr>
<tr>
<td>Rochelle</td>
<td>81</td>
<td>109</td>
<td>+34.57%</td>
</tr>
<tr>
<td>Mayrum</td>
<td>31.5</td>
<td>78.5</td>
<td>+149.21%</td>
</tr>
<tr>
<td>Sposito</td>
<td>32</td>
<td>148</td>
<td>+362.50%</td>
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<tr>
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<td>48.27</td>
<td>95.8</td>
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<tr>
<td>McNary</td>
<td>482</td>
<td>909</td>
<td>+88.59%</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>3,045</td>
<td>7,891.74</td>
<td>+159.17%</td>
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<td>347.5</td>
<td>1,127</td>
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<td>West</td>
<td>561.5</td>
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<td>1,109</td>
<td>2,958.36</td>
<td>+166.76%</td>
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<tr>
<td>Average (8)</td>
<td>578.64</td>
<td>1,527.08</td>
<td>+163.91%</td>
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</table>
The overall ratio of Specialists to Classroom Teachers for all eight districts in 1973-1974 stood at 1:8.43, while in 1983-1984, it was down to 1 Specialist per 4.12 Teachers, a drop of 51.13 percent. The small districts dropped from a ratio of 1:9.83 in 1973-1974 to 1:5.62 in 1983-1984, a decrease of 42.83 percent over the 10 year period. The large districts experienced a decrease of 67.85 percent over the decade, from one Specialist per 7.03 Teachers in 1973-1974 to 1:2.26 in 1983-1984.

Of the small districts, the Tamarus School District showed a decrease of 7.63 percent over the decade, from a ratio of 1:6.42 in 1973-1974 to one Specialist to every 5.93 Teachers in 1983-1984. The Rochelle School District dropped from 1:15.4 in 1973-1974 to 1:7.4 in 1983-1984, a decrease of 51.95 percent. The Mayrum School District reduced their ratio from one Specialist per 6.41 Teachers in 1973-1974 to one Specialist per 6.1 Teachers, a reduction of 4.84 percent over the time span. The last small district, the Sposito School District had an overall decrease of 72.50 percent over the time frame, from 1:11.09 in 1973-1974 to 1:3.05 in 1983-1984.

The McNary School District, the first large district, dropped its ratio from 1:6.89 in 1973-1974 to 1:3.46 in 1983-1984, a decrease of 49.78 percent over the 10 years. The Mountain Meadow School District dropped its Specialist-Teacher ratio a full 66.11 percent, from one Specialist to 7.82 Teachers in 1973-1974 to one Specialist to every 2.65 Teachers in 1983-1984. The Belvoir School District showed a decrease of 62.2 percent over the span, dropping from a ratio of 1:7.74 in 1973-1974 to a ratio of 1:2.92 in 1983-1984. The last
district, the West School District had the largest decrease of all the districts, a 75.09 percent drop. They went from one Specialist for every 5.66 Teachers in 1973-1974 to one Specialist for every 1.41 Teachers in 1983-1984. (See Table 20.)


For the large districts, only the McNary School District experienced an increase in the Teacher-pupil ratio, a 3.55 percent growth. They went from one Teacher for every 23.12 students in 1973-1974 to one Teacher for every 23.94 students in 1983-1984. The Mountain Meadow School District decreased their ratio by 4.16 percent.
Table 20

<table>
<thead>
<tr>
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<tr>
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<td>1:5.93</td>
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<td>1:15.40</td>
<td>1:7.40</td>
<td>-51.95%</td>
</tr>
<tr>
<td>Mayrum</td>
<td>1:6.41</td>
<td>1:6.10</td>
<td>-4.84%</td>
</tr>
<tr>
<td>Sposito</td>
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<td>1:3.05</td>
<td>-72.50%</td>
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<tr>
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</tr>
<tr>
<td>McNary</td>
<td>1:6.89</td>
<td>1:3.46</td>
<td>-49.78%</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>1:7.82</td>
<td>1:2.65</td>
<td>-66.11%</td>
</tr>
<tr>
<td>Belvoir</td>
<td>1:7.74</td>
<td>1:2.92</td>
<td>-62.27%</td>
</tr>
<tr>
<td>West</td>
<td>1:5.66</td>
<td>1:1.41</td>
<td>-75.09%</td>
</tr>
<tr>
<td>Average</td>
<td>1:7.03</td>
<td>1:2.26</td>
<td>-67.85%</td>
</tr>
<tr>
<td>Average (8)</td>
<td>1:8.43</td>
<td>1:4.12</td>
<td>-51.13%</td>
</tr>
</tbody>
</table>

The overall Specialist-pupil ratio for all eight school districts worked out to 1:199.18 in 1973-1974 and 1:94.77 in 1983-1984, a 52.42 percent decrease over the 10 years. The four small districts experienced a 41.80 decrease over the same time frame, from one Specialist for every 209.85 pupils in 1973-1974 to one Specialist for every group of 122.14 in 1983-1984. The four large districts went from a ratio of 1:188.51 in 1973-1974 to a ratio of 1:67.41 pupils in 1983-1984, an overall decrease of 64.24 percent over the years studied.

The first small district, the Tamarus School District, experienced an 18.71 percent decrease in their ratio, from 1:135.86 in 1973-1974 to 1:220.44 in 1983-1984. The Rochelle School District dropped its ratio from one Specialist for every 330.85 pupils in 1973-1974 to one Specialist to every group of 174.12 students in 1983-1984, a decrease of 47.37 percent. The Mayrum School District was the only district to experience an increase in their Specialist-pupil ratio, an increase of 3.31 percent over the 10 year span. It went from 1:130.70 in 1973-1974 to 1:135.02 in 1983-1984. The Sposito School District dropped its ratio from one Specialist per 242.00 pupils in 1973-1974 to one Specialist for every 69.97 pupils in 1983-1984, a decrease of 71.50 percent.
<table>
<thead>
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</tr>
<tr>
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<td>1:21.15</td>
<td>1:18.64</td>
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<tr>
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<td>1:21.49</td>
<td>1:23.52</td>
<td>+9.45%</td>
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<tr>
<td>Mayrum</td>
<td>1:27.18</td>
<td>1:22.15</td>
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<tr>
<td>Sposito</td>
<td>1:21.81</td>
<td>1:22.63</td>
<td>+3.76%</td>
</tr>
<tr>
<td>Average</td>
<td>1:22.91</td>
<td>1:21.74</td>
<td>-5.11%</td>
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<tr>
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</tr>
<tr>
<td>McNary</td>
<td>1:23.12</td>
<td>1:23.94</td>
<td>+3.55%</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>1:27.86</td>
<td>1:26.7</td>
<td>-4.16%</td>
</tr>
<tr>
<td>Belvoir</td>
<td>1:28.82</td>
<td>1:26.86</td>
<td>-6.80%</td>
</tr>
<tr>
<td>West</td>
<td>1:27.19</td>
<td>1:25.00</td>
<td>-8.05%</td>
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<tr>
<td>Average</td>
<td>1:26.75</td>
<td>1:25.63</td>
<td>-4.19%</td>
</tr>
<tr>
<td>Average (8)</td>
<td>1:24.83</td>
<td>1:23.68</td>
<td>-4.63%</td>
</tr>
</tbody>
</table>
Of the large districts, the McNary School District had the smallest decrease for all of the large districts over the 10 year period, a drop of only 47.96 percent. In 1973-1974, their ratio was one Specialist for every 159.18 students and in 1983-1984 it was down to one Specialist per 82.84 pupils. The Mountain Meadow School District dropped from 1:217.88 in 1973-1974 to 1:70.76 in 1983-1984, a decrease of 67.52 percent over the time span studied. The Belvoir School District almost matched their decrease, experiencing their own 64.84 percent decrease. It went from one Specialist per 222.98 pupils in 1973-1974 to one Specialist per 78.40 pupils in 1983-1984. The last district, the West School District, went from a ratio of 1:153.98 in 1973-1974 to a ratio of 1:37.64 in 1983-1984, an overall decrease of 75.56 percent. (See Table 22.)

Table 23 involved all of the certified staff. The average actual cost in 1973-1974 for all eight of the districts came to $636.05 and $1,549.94 in 1983-1984. The adjusted cost came to $1,453.46, which resulted in an over-spending of $96.48 per pupil for all of the certified staff. The four small districts spent $705.65 per pupil in 1973-1974 and $1,580.51 in 1983-1984. Their adjusted cost amounted to $1,618.04, resultant in an under-spending of $37.53 per students. The four large districts spent an average of $566.46 in 1973-1974 and $1,519.37 in 1983-1984. Their average adjusted cost came to $1,298.87. This resulted in over-spending by $220.50 for all of the certified staff by the large districts.

The Tamarus School District spent $1,041.18 in 1973-1974 and $2,467.10 in 1983-1984. The adjusted cost was $2,387.41, a $79.69
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Small</td>
<td>Ratio</td>
<td>Ratio</td>
<td></td>
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<tr>
<td>Tamarus</td>
<td>1:135.86</td>
<td>1:110.44</td>
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<td>-47.37%</td>
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<td>1:130.70</td>
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<td>+3.31%</td>
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<td>1:242.00</td>
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<td>-71.50%</td>
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<td>Average</td>
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<td>1:122.14</td>
<td>-41.80%</td>
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<td>Ratio</td>
<td>% Increase/Decrease</td>
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<td>-47.96%</td>
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<td>Mtn. Meadow</td>
<td>1:217.88</td>
<td>1:70.76</td>
<td>-67.52%</td>
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<tr>
<td>Belvoir</td>
<td>1:222.98</td>
<td>1:78.40</td>
<td>-64.84%</td>
</tr>
<tr>
<td>West</td>
<td>1:153.98</td>
<td>1:37.64</td>
<td>-75.56%</td>
</tr>
<tr>
<td>Average</td>
<td>1:188.51</td>
<td>1:67.41</td>
<td>-64.24%</td>
</tr>
<tr>
<td>Average (8)</td>
<td>1:199.18</td>
<td>1:94.77</td>
<td>-52.42%</td>
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over-spending. The Rochelle School District had costs of $650.47 in 1973-1974 and $1,386.99 in 1983-1984. The adjusted amount came to $1,491.52, which caused under-spending in the amount of $104.53 per pupil. The Mayrum School District spent $490.37 per pupil in 1973-1974 on certified staff and $1,196.33 in 1983-1984. The inflation-adjusted cost came to $1,124.41, an over-spending by $71.92 per pupil. The last small district, the Sposito School District, computed costs of $640.52 in 1973-1974 and $1,271.62 in 1983-1984. The adjusted figure amounted to $1,468.71. Therefore, this district under-spent by $197.09 per student on all of the certified staff costs.

Of the four large districts, the McNary School District spent $617.35 per student in 1973-1974 and $1,726.08 in 1983-1984 on all certified personnel costs. Their adjusted cost came to $1,415.58, which resulted in over-spending by $310.50 per student. The Mountain Meadow School District had costs of $690.33 in 1973-1974 and $1,615.26 in 1983-1984, with an adjusted cost of $1,582.92. These numbers showed over-spending in the amount of $32.34 per pupil. The Belvoir School District spent amounts of $515.91 in 1973-1974 and $1,314.96 in 1983-1984. The adjusted figure amounted to $1,182.98, that showed an over-spending by $131.98 by this district. The last district, the West School District, computed the largest example of over-spending, $447.61 per pupil. It had costs of $442.23 in 1973-1974, $1,421.17 in 1983-1984, and an adjusted cost of $973.56. (See Table 23.)

The second classification was for the District Administrators. The average expenditure for all eight districts in 1973-1974 came to $26.79, which resulted in over-spending by $10.08 per pupil. The four
Table 23

<table>
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<tbody>
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<td>Small</td>
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<tr>
<td>Tamarus</td>
<td>$1,041.18</td>
<td>$2,467.10</td>
<td>$2,387.41</td>
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<tr>
<td>Rochelle</td>
<td>650.47</td>
<td>1,386.99</td>
<td>1,491.52</td>
<td>-$104.53</td>
</tr>
<tr>
<td>Mayrum</td>
<td>490.37</td>
<td>1,196.33</td>
<td>1,124.41</td>
<td>$+71.92</td>
</tr>
<tr>
<td>Sposito</td>
<td>640.52</td>
<td>1,271.62</td>
<td>1,468.71</td>
<td>-$197.09</td>
</tr>
<tr>
<td>Average</td>
<td>705.65</td>
<td>1,580.51</td>
<td>1,618.04</td>
<td>-$37.53</td>
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</tr>
<tr>
<td>McNary</td>
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<td>$1,726.08</td>
<td>$1,415.58</td>
<td>$+310.50</td>
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<tr>
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<td>690.33</td>
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<td>1,582.92</td>
<td>$+32.34</td>
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<tr>
<td>Belvoir</td>
<td>515.91</td>
<td>1,314.96</td>
<td>1,182.98</td>
<td>$+131.98</td>
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<tr>
<td>West</td>
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<td>1,421.17</td>
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<tr>
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<td>$1,453.40</td>
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</table>

*What it should have been.


Of the four large districts, the McNary School District had costs of $12.45 in 1973-1974 and $35.45 in 1983-1984. Its adjusted cost for District Administration amounted to $28.55 per pupil, which resulted in over-spending by $6.90. The Mountain Meadow School District computed its costs as $10.09 per pupil in 1973-1974, $45.29 in 1983-1984, and a CPI-adjusted cost of $23.14. These figures showed this district over-spending by $22.15. The Belvoir School District showed over-spending by $9.57 per pupil, the largest amount of
over-spending by a district. Their costs were $8.95 in 1973-1974, $30.09 in 1983-1984, and an adjusted cost of $20.52. The last district, the West School District, computed actual costs of $7.55 in 1973-1974 and $20.45 in 1983-1984. Their CPI-adjusted cost amounted to $17.31. These figures computed to an over-spending by this district in the amount of $3.14 per pupil for their District Administrators. (See Table 24.)

The average cost for Building Administrators for all eight of the districts in 1973-1974 was $38.35 and $82.90 in 1983-1984. The CPI-adjusted cost came to $87.94, which resulted in under-spending by $5.04 per pupil. The average for the four small districts amounted to $36.94 in 1973-1974 and $67.82 in 1983-1984. Their adjusted cost came to $84.71, which showed an under-spending in the amount of $16.89 per student. The four large districts, on the other hand, over-spent by $6.81 per A.D.M. on costs of $39.76 in 1973-1974, $97.98 in 1983-1984, and an adjusted cost of $91.17.

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<tr>
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<tr>
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<tr>
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<tr>
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<td>20.52</td>
<td>+9.45</td>
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<tr>
<td>West</td>
<td>7.55</td>
<td>20.45</td>
<td>17.31</td>
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<tr>
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<td>$ 36.87</td>
<td>$ 26.79</td>
<td>$ +10.08</td>
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</table>

*What it should have been.
computed costs per pupil of $42.30 in 1973-1974, $62.07 in 1983-1984, and a CPI-adjusted cost of $96.99 per A.D.M. The result was under-spending in the amount of $34.92.

The McNary School District computed costs of $49.36 in 1973-1974 and $121.48 in 1983-1984. Its adjusted cost amounted to $113.18, which caused over-spending by $8.30 per pupil. The Mountain Meadow School District showed costs of $45.37 in 1973-1974, $98.84 in 1983-1984, and an adjusted cost of $104.03. These numbers computed to the only example of a large district under-spending, in the amount of $15.33 per pupil. The Belvoir School District allocated costs of $36.66 in 1973-1974 and $93.59 in 1983-1984. Its CPI-adjusted cost amounted to $84.06, which showed the district over-spending by $9.53. The last district, the West School District, had costs of $27.65 in 1973-1974 and $78.02 in 1983-1984. Their adjusted cost came to $63.40, which resulted in the district over-spending by the amount of $14.62 per A.D.M. (See Table 25.)

The average cost of all eight districts for Classroom Teachers came to $510.09 in 1973-1974 and $1,122.49 in 1983-1984. The CPI-adjusted cost amounted to $1,169.63 per pupil, which resulted in an average under-spending by $47.14 per pupil for actual Classroom Teachers. The four small districts' average costs amounted to $575.37 in 1974-1974, $1,244.09 in 1983-1984, and an adjusted cost of $1,319.32. These figures resulted in average under-spending in the amount of $75.23 per A.D.M. The four large districts also under-spent on their Classroom Teachers, in the per A.D.M. amount of $20.75 on costs of $444.81 in 1973-1974, $999.20 in 1983-1984, and a CPI-adjusted cost of $1,019.95.
Table 25

<table>
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<th></th>
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</thead>
<tbody>
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<td></td>
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</tr>
<tr>
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<td>41.81</td>
<td>69.52</td>
<td>-27.71</td>
</tr>
<tr>
<td>Mayrum</td>
<td>14.69</td>
<td>48.33</td>
<td>33.68</td>
<td>+14.65</td>
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<tr>
<td>Sposito</td>
<td>42.30</td>
<td>62.07</td>
<td>96.99</td>
<td>-34.92</td>
</tr>
<tr>
<td>Average</td>
<td>36.94</td>
<td>67.82</td>
<td>84.71</td>
<td>-16.89</td>
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</tr>
<tr>
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<td>$ 113.18</td>
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<tr>
<td>Mtn. Meadow</td>
<td>45.37</td>
<td>98.84</td>
<td>104.03</td>
<td>-15.33</td>
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<tr>
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<td>36.66</td>
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<td>27.65</td>
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<td>Average</td>
<td>39.76</td>
<td>97.98</td>
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<td><strong>Average (8)</strong></td>
<td>$ 38.35</td>
<td>$ 82.90</td>
<td>$ 87.94</td>
<td>$ -5.04</td>
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</table>

*What it should have been.
The Tamarus School District computed costs of $833.16 in 1973-1974, $1,948.84 in 1983-1984, and an adjusted cost of $1,910.43. These amounts worked out to an over-spending on Classroom Teachers by $38.41 per pupil. The Rochelle School District showed costs of $544.66 in 1974-1974 and $1,167.49 in 1983-1984. Their CPI-adjusted cost amounted to $1,248.90, which resulted in a case of under-spending of $81.41 per A.D.M. The Mayrum School District computed per A.D.M. costs of $387.33 in 1973-1974, $956.37 in 1983-1984, and an adjusted figure of $888.14. These amounts resulted in an over-spending situation of $68.23 per pupil. The last small district, the Sposito School District, showed per pupil costs of $536.34 in 1973-1974 and $903.66 in 1983-1984. Its CPI-adjusted cost for Classroom Teachers amounted to $1,229.82. This amounted to a case of under-spending by the district in the amount of $326.16 per student.

Table 26
Comparisons of Inflation-Adjusted Costs and Actual Costs—Classroom Teachers,

<table>
<thead>
<tr>
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<tr>
<td>Tamarus</td>
<td>$ 833.16</td>
<td>$ 1,948.84</td>
<td>$ 1,910.43</td>
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<tr>
<td>Rochelle</td>
<td>544.66</td>
<td>1,167.49</td>
<td>1,248.90</td>
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<tr>
<td>Mayrum</td>
<td>387.33</td>
<td>956.37</td>
<td>888.14</td>
<td>+68.23</td>
</tr>
<tr>
<td>Sposito</td>
<td>536.34</td>
<td>903.66</td>
<td>1,229.82</td>
<td>-326.16</td>
</tr>
<tr>
<td>Average</td>
<td>575.37</td>
<td>1,244.09</td>
<td>1,319.32</td>
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<tr>
<td>McNary</td>
<td>$ 480.14</td>
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<td>Mtn. Meadow</td>
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<td>1,098.04</td>
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<td>Belvoir</td>
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<td>905.55</td>
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<td>West</td>
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<tr>
<td>Average (8)</td>
<td>$ 510.09</td>
<td>$ 1,122.49</td>
<td>$ 1,169.63</td>
<td>$ -47.14</td>
</tr>
</tbody>
</table>

*What it should have been.
For the Specialists, the eight districts averaged costs of $74.67 in 1973-1974 and $311.26 in 1983-1984. The average CPI-adjusted cost amounted to $171.22, which resulted in an over-spending on these personnel by $140.04. The four small districts averaged costs of $77.21 in 1973-1974, $233.15 in 1983-1984, and an adjusted cost of $177.04. These figures computed to a $56.11 over-spending on Specialists per pupil. The four large districts over-spent by $233.98 with costs of $72.13 per pupil in 1973-1974, $389.37 in 1983-1984 and a CPI-adjusted per A.D.M. cost of $165.39.

The Tamarus School District had actual costs of $127.29 in 1973-1974 and $332.15 in 1983-1984. Their adjusted cost amounted to $291.88, which resulted in an over-spending by $40.27 per pupil. The Rochelle School District computed costs of $53.53 in 1973-1974, $157.10 in 1983-1984, and an adjusted figure of $122.74. These numbers computed to a $34.36 over-spending situation for Specialists. The Mayrum School District experienced an under-spending situation in the amount of $25.70, with actual costs of $78.89 in 1973-1974, $155.19 in 1983-1984, and an adjusted cost of $180.89. This district was the only district to under-spend for its Specialists. The Sposito School District computed its actual costs as $49.12 in 1973-1974 and $288.16 in 1983-1984. Its adjusted for inflation cost amounted to $112.63. These numbers computed to an over-spending by the amount of $175.53 per pupil.

The McNary School District had actual costs of $75.40 in 1973-1974 and $383.70 in 1983-1984. Its CPI-adjusted cost came to $172.89, which resulted in over-spending by $210.81, the second-largest amount of
over-spending of all eight districts. The Mountain Meadow School District showed the amount of over-spending by a large school district as $169.69 per pupil. It had actual costs of $88.70 in 1973-1974, $373.08 in 1983-1984, and an adjusted cost of $203.39. The Belvoir School District showed costs of $57.64 in 1973-1974 and $285.74 in 1983-1984. Its CPI-adjusted cost amounted to a figure of $132.17 per pupil for Specialists, which resulted in over-spending by $153.57 per pupil. The last district, the west School District, computed the largest amount of over-spending by any district studied. It over-spent by the amount of $361.87 on actual costs of $66.77 in 1973-1974, $514.97 in 1983-1984, and a CPI-adjusted cost of only $153.10. (See Table 27.)
### Table 27

<table>
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<tbody>
<tr>
<td><strong>Small</strong></td>
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</tr>
<tr>
<td>Tamarus</td>
<td>$127.29</td>
<td>$332.15</td>
<td>$291.88</td>
<td>$ +40.27</td>
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<tr>
<td>Rochelle</td>
<td>53.53</td>
<td>157.10</td>
<td>122.74</td>
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<tr>
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<td>155.19</td>
<td>180.89</td>
<td>-25.70</td>
</tr>
<tr>
<td>Sposito</td>
<td>49.12</td>
<td>288.16</td>
<td>112.63</td>
<td>+175.53</td>
</tr>
<tr>
<td>Average</td>
<td>77.21</td>
<td>233.15</td>
<td>177.04</td>
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<td><strong>Large</strong></td>
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</tr>
<tr>
<td>McNary</td>
<td>$75.40</td>
<td>$383.70</td>
<td>$172.89</td>
<td>$ +210.81</td>
</tr>
<tr>
<td>Mtn. Meadow</td>
<td>88.70</td>
<td>373.08</td>
<td>203.39</td>
<td>169.69</td>
</tr>
<tr>
<td>Belvoir</td>
<td>57.64</td>
<td>285.74</td>
<td>132.17</td>
<td>+153.57</td>
</tr>
<tr>
<td>West</td>
<td>66.77</td>
<td>514.97</td>
<td>153.10</td>
<td>+361.87</td>
</tr>
<tr>
<td>Average</td>
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<td>Average (8)</td>
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<td>311.26</td>
<td>171.22</td>
<td>$ +140.04</td>
</tr>
</tbody>
</table>

*What it should have been.
CHAPTER FIVE

Summary, Conclusions, and Recommendations

Introduction

Chapter Five presented a brief review of the purpose of the study and the procedures utilized to obtain and analyze the data, a summary of the results obtained by analysis of the data, the conclusions that were drawn, and the recommendations made regarding the area examined by this study and suggestions for future research.

An Overview of the Study

Educational institutions were faced with societal demands for fiscal accountability. Since the majority of a district's expenditures were spent on personnel costs, this study was undertaken to determine if and how the expenditure pattern for Certified Personnel had changed over a specific ten year period. These personnel were classified into the categories of District Administrators, Building Administrators, Classroom Teachers, and Specialists.

The design of the study called for a review of the literature on several topic areas. They included the history of budgeting in the national, state, local and municipal, and school district arenas. Also reviewed was the concept of school district budget analysis, the effect of the inflation-factor as measured by the Consumer Price Index, growth in organizations, and the current status of Specialists in school systems.
Using a Comparative-Historical approach, eight school system budgets were analyzed for the fiscal years 1973-1974 and 1983-1984. This was accomplished using techniques and measurements utilized by many other educational studies and acknowledged by several authorities as important in educational administration. These techniques and measurements included measurement by percentage of total expenditures, per A.D.M. expenditures, and actual dollar expenditures. Also involved was the concept of Pupil-Teacher Ratio, again a standard educational measurement.

From this data, a series of computations were done, parallel to the questions stated in the Statement of the Problem in Chapter One. These computations involved the comparison of the eight individual school districts, as well as the comparison of large districts to small districts for both of the years studied.

Lastly, the effects of inflation as measured by the Consumer Price Index on spending for the different categories of certified personnel was compared to the actual spending for the category in 1983-1984. The year 1973-1974 was considered the "base" year for this group of computations. Again, these computations were compared for all eight districts, as well as for comparison of large and small districts.

The review of the literature in Chapter Two as well as the findings in the various computations, analyses, and comparisons served as the basis for the conclusions and recommendations detailed later in this chapter.
Summary of Findings

1. The average percentage of total expenditures spent on all certified staff costs for the eight districts in 1973-1974 stood at 57.44 percent. In 1983-1984, it had dropped to 50.98 percent, a decrease of 11.25 percent. In 1973-1974, the four small districts allocated 59.22 percent of their total budget to all certified staff, with 51.70 percent allocated in 1983-1984. This computed to a 12.7 decrease. The four large districts averaged 55.67 percent for all certified staff costs in 1974-1974 and 50.26 percent in 1983-1984, a 9.72 percent decrease. (See Graph 1.)

2. The average per A.D.M. cost for all certified staff costs for all eight districts computed to $636.05 in 1973-1974 and $1,549.94 in 1983-1984, an increase of 143.68 percent in the ten year span. The four small districts increased their per A.D.M. spending by 123.98 percent, from $705.64 in 1973-1974 to $1,580.51 in 1984-1984. The four large districts showed a 168.22 percent increase in per A.D.M. spending for all certified staff. Their average cost rose from $566.46 in 1973-1974 to $1,519.37 in 1983-1984. (See Graph 2.)

3. The average actual number of Specialists, defined as Special Education Teachers, Psychologists, Speech Therapists, Nurses, Bilingual Teachers, and other such personnel, in the eight district sample worked out to 578.64 Specialists in 1973-1974 and 1,527.08 Specialist in 1983-1984, a 163.91 percent increase in just ten years! The four small districts averaged
Graph 1

Comparison of the Percent of Budget Spent on All Certified Staff, 1973-1974 and 1983-1984
Graph 2

Comparison of Per A.D.M. Costs for All Certified Staff, 1973-1974 and 1983-1984
48.27 Specialists in 1973-1974 and 95.8 in 1983-1984, only a 98.47 percent increase over the same ten year period. The four large districts disclosed an average of 1,109 Specialists in 1973-1974 and 2,958.36 in 1983-1984, a total increase of 166.76 percent over the decade! (See Graph 3.)

4. The eight district's average Specialist-Classroom Teacher Ratio stood at 1:8.43 in 1973-1974 and 1:4.12 in 1983-1984, a total decrease in ratio of 51.13 percent. In other words, these figures demonstrated the fact that the number of Specialists had increased at a much faster rate than the number of Classroom Teachers had. The four small districts experienced a decrease of only 42.83 percent in their Specialist-Teacher Ratio. They decreased the ratio from 1:9.83 in 1973-1974 to 1:5.62 in 1984-1984. The four large districts showed an average decrease of 67.85 percent in their ratio of Specialist to Classroom Teacher. They went from one Specialist per 7.03 Teachers in 1973-1974 to one Specialist per 2.26 Teachers in 1983-1984! (See Graph 4.)

Graph 3

Comparison of the Actual Number of Certified Staff, 1973-1974 and 1983-1984
Graph 4

Comparison of Specialist-Teacher Ratios, 1983-1984

Graph 5
6. The average Specialist-Pupil Ratio for all eight systems dropped from 1:199.18 in 1973-1974 to 1:94.77 in 1983-1984, a decrease of 52.42 percent. As before, these figures demonstrated the fact that the actual number of Specialists had increased greatly over the ten year period. The four small districts experienced a decrease of only 41.8 percent in their average Specialist-Pupil Ratio, from 1:209.85 in 1973-1974 to 1:122.14 in 1983-1984. The four large districts saw their average ratio decline from 1:188.51 in 1974-1974 to 1:67.41 in 1983-1984, an average decrease of 64.24 percent. (See Graph 6.)

7. By comparison of actual and adjusted expenditures for 1973-1974 and 1983-1984, the eight districts averaged over-spending (or real growth) by $96.48 per A.D.M. on all certified staff, over-spending by $10.08 per A.D.M. on District Administration, under-spending (or decline in spending) by $5.04 per A.D.M. on Building Administration, under-spending by $47.14 per A.D.M. on Classroom Teachers, and over-spending by $140.04 per A.D.M. on Specialists. The four small districts averaged over-spending (all measured in per A.D.M. expenditures) by $37.53 on all their certified staff, over-spent by $4.18 on District Administration, under-spent by $16.89 on Building Administrators; Classroom Teachers came in for under-spending by $75.23, and over-spending for Specialists by $56.11. The four large districts computed over-spending (again, measured in per A.D.M. expenditures) by $220.52 on all certified staff
Graph 6

Comparison of Specialist-Pupil Ratios, 1973-1974 and 1983-1984
costs, with over-spending by $20.52 on District Administration, $6.81 over-spending for Building Administration, under-spending for Classroom Teachers by an average of $20.75, and over-spending for Specialists by $223.98. (See Graphs 7, 8, 9, 10, 11.)

Conclusions

Conclusions reached in this study resulted from the review of the literature and the findings from the analysis of the data. The conclusions were:

1. Based on the limited sample of eight districts, the percentage of total expenditures spent for all certified staff costs had deteriorated over the ten year span studied. This held true regardless of the size of the district, the only difference being the amount of the actual decrease. Possibly, the decline in percentage could be attributed to the rise in classified costs, the rise of utilities costs, or the rise in the cost of supplies and materials.

2. Even though actual per A.D.M. dollars spent on Certified Staff positions had increased an average of 143.68 percent over the ten years, when the inflation factor was computed into the spending figures, the four small districts showed a decline in real dollars spent (or under-spent) on certified staff per A.D.M. On the other hand, the four large districts showed real growth in their spending (or over-spent) for certified staff when the inflation factor was figured in. Basically, the large school districts increased expenditures
Comparison of Actual and Adjusted Costs Classroom Teachers, 1973-1974 and 1983-1984
over and above the inflation rate for the certified staff. The four small districts, on the other hand, failed to keep pace with inflation on their expenditures for certified staff.

3. The actual number of Educational Specialists had increased dramatically in the districts, with one exception (a small district). However, based on averages, the four large districts increased their number of Specialists at a much higher rate than the small districts did. It appeared that these figures demonstrated that Barnard and also Downs were correct in believing that organizations tend to expand. The figures also verified William Starbuck's opinion that large organizations were better able to expand by bringing in more specialists, and thus expand at a faster rate than smaller organizations.

In other words, the large districts seemed to place a greater emphasis on Specialists than the small districts did. Possibly, as a result of their size and additional funds that they were able to expend, the large districts felt it more expedient (and possible) to hire Specialists than the small districts did.

4. Tied in with the previous finding was the conclusion that the ratio of Specialist to Classroom Teacher had also drastically declined. It was a further indication of the increased growth in the number of Specialists. As before, the decrease in ratio for the large districts far out-distanced the decrease for the four small districts.
The figures, especially the average for the large districts, clearly demonstrated Victor Thompson's belief that more and more people in an organization were performing new functions in more specialized bureaus and less people were doing the actual work of the organization.

5. Further examination of the other data and computations presented in Chapters Three and Four indicated that the position of Specialist in the districts studied had increased in actual number, actual dollar costs, and per A.D.M. expenditures at a much faster rate than for any other certified position.

These figures seemed to verify the A.A.S.A. report that Specialists were increasing. The figures also seemed to dispel Michael Kirst's opinion that the number of Specialists had peaked before the 1980's.

However, as the data revealed, the average increases for the Specialists were at a much higher rate in the large districts as compared to the averages of the four small systems.

6. Some of the possible reasons for the increase of the Specialists were found in the review of the literature from Chapter Two. These explanations included the attempt by educators to professionalize by increased specialization, the increase of entitlement social programs in the schools as advocated by many special-interest groups, and a general decline in the number of pupils (which resulted in less demand for "general" teachers).
Another possible explanation was the increased Federal involvement in education. As Federal programs were increased and mandated, so did the number of Specialists increase to fulfill the requirements set by the Federal regulations.

Finally, the possibility of "empire-building" seemed to exist in some degree in the school systems. Possible reasons for this occurrence were listed by William Starbuck. They included the desire for adventure, prestige, risk (or the avoidance of "boredom"), job security, better executive salaries, position self-justification, and increased power.

Recommendations

Based upon the data, analyses made, and conclusions that were reached in the above section, the following recommendations were made:

1. It was recommended that school districts re-identify the "mission" of their schools. Many who have occupied positions of power within the system have succumbed to pressure to provide all kinds of ancillary services.

2. It was recommended that districts analyze their budgets to verify that their expenditures are going to those positions which directly influence the "mission" of the schools.

3. It was recommended that districts verify that all support positions were required and needed to support the Teaching-Learning process and eliminate those that are not.

4. It was recommended that all support positions and departments be placed on a modified zero-based budget and performance
system so as to require them to justify and explain their continued existence in relation to how and why they affect the Teaching and Learning process.

5. It was also recommended that further research include the replication of this study at ten year intervals to identify and verify expenditure patterns and changes. These studies could be used to suggest further recommendations on the fiscal support of the Teaching and Learning process.

6. It was also recommended that this study be replicated with a longer time span than the ten years done here. Perhaps it would show even a more dramatic change in staffing patterns or expenditure patterns over a 25 or 30 year period.

7. In addition, it was recommended that additional research be conducted on expenditure patterns of other support personnel, especially in the Classified category.

8. Lastly, it was further recommended that additional research examine the fiscal impact of various Federal and state mandated compensatory programs on the participating school systems.
Dear Sir,

I am currently a doctoral candidate at the University of Nevada, Las Vegas in the Department of Educational Administration and Higher Education under the supervision of Dr. George Kavina.

We have developed a research design by which to analyze costs in selected school systems. We should very much like to include your system among several systems in a rather small sample. To do this study, it would be necessary to secure the budget documents that are given to the general public for the school years 1973-1974 and 1983-1984.

This study will be utilized to show trends, rather than the results from just one system. Of course, all results will be handled with anonymity, though I will be happy to share the results with you and your system at the conclusion of the study.

Please let me know what I would need to do to secure the necessary budget documents from your system. I would appreciate any help that you could provide.

Sincerely,

Mr. Steven Henick