ED 304 796 EA 020 842

TITLE The 1987-88 Accountable Costs Study: A Report to the Governor, the Lieutenant Governor, and Members of the Seventy-First Legislature from the State Board of Education.
INSTITUTION Texas Education Agency, Austin.; Texas State Board of Education, Austin.
REPORT NO TEA-FS9-742-01
PUB DATE Nov 88
NOTE 94p.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Board of Education Policy; Class Size; *Educational Facilities; *Educational Finance; Educational Legislation; Elementary Secondary Education; *Expenditure per Student; Program Costs; Public Schools; *School District Spending; *School Statistics; *Teacher Salaries
IDENTIFIERS *Texas

ABSTRACT

The State Board of Education is required by the Texas Education Code Section 16.201 to make recommendations to the legislature concerning the cost of education. This report is a summation of the State Board of Education findings. After more than a year of study, the board has determined the minimum basic program costs to be $2,197 per student in the 1989-90 school year and $2,294 per student in the 1990-91 school year. This Accountable Costs Report includes specific recommendations for the basic allotment and highlights the need for a more adequate funding base for public school districts. The report is organized into six chapters, the first of which is an introduction. The second chapter provides a summary of significant findings and recommendations in the areas of minimum basic program cost, school facilities, and costs of implementing the long-range plan. Each of these areas is taken up in greater detail in the remaining three chapters. Appended are (1) class size data for selected percentiles of students; (2) costs for instructional salaries; (3) facilities work session panel participants; and (4) definitions of variables used in the study of school facilities. (SI)

# 1987-1988
# ACCOUNTABLE COSTS STUDY

# FROM THE
# STATE BOARD OF EDUCATION

TEXAS EDUCATION AGENCY
AUSTIN, TEXAS

THE 1987-88 ACCOUNTABLE COSTS STUDY:

A Report to the Governor, the Lieutenant Governor,

and Members of the Seventy-First Legislature

from the

State Board of Education

November 1988

Texas Education Agency

# State Board Of Education

1701 North Congress Avenue
Austin, Texas 78701-1494
(512) 463-9007




November 12, 1988

The Honorable William P. Clements,
Governor of Texas
The Honorable William P. Hobby,
Lieutenant Governor of Texas
The Honorable Gibson D. Lewis,
Speaker of the House
Members of the 71st Legislature

Section 16.201 of the Texas Education Code calls for the State Board of Education to report to the legislature "what it determines to be the minimum basic accountable costs per student to school districts of providing quality education programs, personnel, and facilities that meet the accreditation standards prescribed by law and rule, for each year of the next biennium." The statute further calls on the legislature to consider the recommendations of the board in adopting the amount of allotments for the Foundation School Program.

In June 1987, the State Board of Education appointed the Accountable Costs Advisory Committee and charged the committee with determining the cost of operating a minimum basic program to meet accreditation standards. After more than a year of study, the committee has submitted its report to the board. As required by statute, the board has determined the minimum basic program costs to be $2,197 per student in the 1989-90 school year and $2,294 per student in the 1990-91 school year. The State Board of Education now submits with its approval the Accountable Costs Report, including specific recommendations for the basic allotment, to the legislature for consideration in the funding process.

The report highlights the need for a more adequate funding base for public school districts in order to meet the costs of existing mandates. The State Board of Education requests your serious consideration of the findings of the Accountable Costs Advisory Committee in your deliberations on school funding.

Respectfully submitted,

Jon Brumley

Jon Brumley, Chairman
State Board of Education

## Committees
## of the
## State Board of Education

**Personnel**
JOHN MACK PRESCOTT, Chairman
REBECCA CANNING
EMMETT J. CONRAD
CAROLYN HONEA CRAWFORD
PAUL C. DUNN

**Finance & Programs**
MARIA ELENA A. FLOOD, Chairman
JON BRUMLEY
WILLIAM V. McBRIDE
GERALDINE MILLER
PETE MORALES, JR.

**Long-Range Planning**
REBECCA CANNING, Chairman
MARY HELEN BERLANGA
EMMETT J. CONRAD
CAROLYN HONEA CRAWFORD
CHARLES W. DUNCAN, JR.
WILLIAM V. McBRIDE

**Students**
JACK STRONG, Chairman
VOLLY C. BASTINE, JR.
MARY HELEN BERLANGA
CHARLES W. DUNCAN, JR.
KATHERINE PEARCY RAINES

ACCOUNTABLE COSTS ADVISORY COMMITTEE

Jared Hazelton
Vice President for Economics
Mesa Limited Partnership
Amarillo, Texas
Committee Chairman

Charles Benson
Superintendent
Corpus Christi ISD
Corpus Christi, Texas

Don Cormie
Accountant
Grant Thornton and Co.
San Antonio, Texas

J.D. Cox
Superintendent
Atlanta ISD
Atlanta, Texas

Gus Guerra
Superintendent
Pharr-San Juan-Alamo ISD
Pharr, Texas

Robert Hester
Former School Board President
Dallas ISD
Dallas, Texas

Tom Masterson
President
Masterson and Co.
Houston, Texas

Patricia Shell
Superintendent
Brazosport ISD
Freeport, Texas

William Sparkman
Professor
Texas Tech University
Lubbock, Texas

Acknowledgements

Lynn M. Moak
Deputy Commissioner
Department of Research and Information

Joe Wisnoski
Director
Division of Resource Planning

Mary Ann Bird
Debra Haas
Mark Lopez
Melinda Preston

Horace Bledsoe
Cathy Long
Suresh Pant
Mary Ann Sparkman

11

TABLE OF CONTENTS

## CHAPTER 1

## INTRODUCTION

This document is the report of the 1987-88 Accountable Costs Advisory Committee. It is intended to provide recommendations to the State Board of Education consistent with the charges made to the Committee, and reflects deliberations which took place over the time period from August 1987 through September 1988.

The State Board of Education is charged by Texas E' :ation Code Section 16.201 to make recommendations to the legislature concerning the cost of education.

> "As part of its biennial report to the legislature, the State Board of Education shall report what it determines to be the minimum basic accountable costs per student to school districts of providing quality education programs, personnel, and facilities that meet the accreditation standards prescribed by law and rule, for each year of the next biennium."

The statutory charge cited above was revised by H.B. 2347 of the 70th Legislature to incorporate the language "minimum basic accountable costs." Since the passage of education reform legislation in 1984, the charge had been to determine "average actual accountable costs."

As described in statute, the role of the Accountable Costs Advisory Committee is to "assist the (State Board of Education) in determining the minimum basic accountable costs." Studies of educational costs have been conducted by the Accountable Costs Advisory Committee since 1984 under the previous charges, and have included recommendations to the State Board of Education covering the costs of implementing education reforms as well as specific program costs and formulas.

The membership of the Accountable Costs Advisory Committee is limited by statute to nine members, a majority of whom may not be employees or officials of a local school district. The membership must also be representative of different geographic areas and school district sizes. In June of 1987, the State Board of Education appointed the Accountable Costs Advisory Committee and established four primary charges for the Committee's study, listed below:

> "First, the Advisory Committee will direct a study to identify the cost of implementing provisions of the Long-Range Plan of the State Board of Education. To the extent possible, the cost of each action by the state, the education service centers, and school districts should be clearly identified.
>
> "Second, the cost of operating a minimum basic program to meet accreditation standards should be calculated by the Advisory

Committee. This activity will serve to update the estimates done by previous committees.

"Third, a study of facilities should again be undertaken by the Advisory Committee. In view of the state's position relative to funding of school facilities, it is important that the costs of school districts for adequate facilities be identified.

"Finally, the Advisory Committee should review a contracted study of the cost of programs in bilingual, compensatory, and gifted/talented education. The Advisory Committee should make recommendations to the board for changes in the funding of these programs based on its review of the study."

Over the course of a full year, the Committee met approximately once each month, with meetings held more frequently for special presentations and for finalization of Committee work.

This report is organized into six chapters, the first of which is this introduction. The second chapter provides a summary of significant findings and recommendations of the Committee, and the remaining four cover more detailed descriptions of study methodologies and results.

## CHAPTER 2

## SUMMARY OF FINDINGS AND RECOMMENDATIONS

This chapter presents the significant findings and recommendations of the 1987-88 Accountable Costs Advisory Committee. More detailed descriptions of study methodologies used by the Committee are provided in subsequent chapters.

### RECOMMENDATIONS CONCERNING THE COST OF A MINIMUM BASIC PROGRAM

#### Basic Allotment and Minimum Basic Cost

The Accountable Costs Advisory Committee finds that the cost of a minimum basic program of regular education in Texas public schools in 1987-88 was $2003 per student in average daily attendance. In order to reflect an appropriate basic allotment within the framework of the existing Foundation School Program, adjustments should be made to the cost of a minimum program for the impact of the price differential index, experienced teacher allotment and educational improvement allotment. By subtracting the effects of these other formula items and adjustments, the Committee finds that the basic allotment for 1987-88 should have been $1731.

#### 1989-90 and 1990-91 Basic Allotments

It is the finding of the Committee that the current basic allotment of $1350 per student in average daily attendance (ADA) is inadequate to fund a minimum basic program. The Committee finds that the basic allotment required to fund the minimum basic program for the 1989-90 school year should be $1890, and the basic allotment for the 1990-91 school year should be $1973 per ADA. These recommendations reflect adjustments for the forecasted consumer inflation over the current and future fiscal years.

### RECOMMENDATIONS CONCERNING THE COST OF SCHOOL FACILITIES

#### Construction and Renovation of Facilities

Although accurate and complete data on the status and inventory of facilities are not available, the Committee estimates that the cost of facilities for public school districts for the next biennium may require an investment of approximately $760 million each year. This cost estimate includes construction to meet the demands of growing student populations, renovation of existing structures, and facilities required to meet the maximum class size standard of 22:1 in grades 3 and 4.

Inventory of School Facilities

It is the recommendation of the Committee to the State Board of Education that specific legislative authority be sought to inventory and evaluate all structures used for educational purposes. It is also recommended that an adequate legislative appropriation be sought to fund the development of an inventory database. Continuing appropriations will be necessary for the maintenance and update of the database.

State Role in Financing School Facilities

The role of the state in financing and constructing school facilities should be sufficient to help districts which do not have the resources to construct adequate school facilities while at the same time allowing all districts to maintain a significant degree of local control about what type of facilities to construct. As part of defining the role of the state, minimum standards should be established for facilities and an inventory of existing facilities should be undertaken. The state should establish guidelines for providing a debt service subsidy to the low wealth districts, using criteria such as wealth and tax effort, level of existing debt, quality of existing facilities, or some combination thereof.

Texas School Bond Guarantee Insurance Program

The legislature should authorize the Permanent School Fund to establish an independent insurance company with an investment of at least $100 million from the fund. This company would provide bond insurance to all districts in the state, guaranteeing a AAA rating for all bonds. Such an investment would also serve to reduce any state funds required for interest subsidies under other recommendations.

## RECOMMENDATIONS CONCERNING THE COSTS OF IMPLEMENTING THE LONG-RANGE PLAN

Special Weight for Kindergarten through Grade 4

The State Board of Education adopted an add-on weight of .2 for students in grades kindergarten through 4 in both its 1986 and 1988 preliminary budget considerations. Based on the Board adopted weight, the Committee estimates the cost of a special weight for the early elementary grades to be $867 million for the next biennium, of which $581 million would be state cost. The lower class size requirement for these grades is included in the cost of the minimum basic program.

### Reduction in the Number of Waivers

School districts have reduced class size waivers over the past three years by incurring significant new debt and increasing operating costs. Because data are not reported in a detailed form by purpose of debt, it is not possible to clearly identify debt specifically issued for compliance with class size limitations.

### Dropout Rate Reduction

Given the goals set forth in the Long-Range Plan to reduce the dropout rate to 24% in the 1988-89 school year, and to 5% by the 1997-98 school year, we estimate the cost to the state at more than $40 million per year in formula driven cost for the 1988-89 school year. Costs exceed $100 million per year in order to reduce the rate to 5% by 1997-98. In addition, local district cost will be substantial for dropout prevention and "at risk" programs. In addition to these costs, success in reducing the dropout rate will increase the need for classroom space.

### Teacher Compensation

To reach the goals set by the State Board of Education to raise the level of teacher compensation to that of comparable professions may require between $200 million and $500 million per year in additional resources. To reach the national average may require at least $300 million. Direct comparisons to other professions and to national averages are difficult and often misleading.

The Committee recommends that a legislative appropriation be sought to undertake a systematic analysis of teacher compensation, focusing on the level of compensation that would be required to attract and retain the best and the brightest in the teaching profession.

### Technology

Over the next seven years, the investment required to reach goals for communications and computer technologies in public schools could exceed $700 million. However, there is no inventory of existing technology in school districts today and the availability of that equipment could tend to reduce the required investment level.

## COST OF PROGRAMS FOR EDUCATIONALLY DISADVANTAGED AND GIFTED/TALENTED

The Committee reviewed and provided comment on the methodology proposed by the contractor for the field data collection and cost modeling for the Compensatory, Bilingual/ESL, and Gifted/Talented programs. The Committee also was able to review the preliminary report of the contractor to the agency. The Committee was not able to propose alternative weighting for these programs for inclusion in this report due to the time required to analyze the information.

## CHAPTER 3

## MINIMUM BASIC PROGRAM COST

### DEFINITION OF A MINIMUM BASIC PROGRAM

The minimum basic program, as defined for the 1987-88 Accountable Costs Advisory Committee study is based on the requirements for a Well-Balanced Curriculum set out in Title 19, Part II of the Texas Administrative Code, Chapter 75, Subchapters B, C, E and F. These portions of the law define both the State's requirements for graduation as well as the Essential Elements at the elementary and secondary school levels.

#### Required Curriculum and Essential Elements

Chapter 75 of the Texas Administrative Code sets forth the standards for all courses taught in the Texas public schools. While it is required that courses which are taught have a certain approved content, it is not mandatory that all approved courses be offered in a district. For the purposes of estimating the cost of a minimum basic program, only those courses required for promotion and graduation, and a limited number of electives, sufficient to meet the mandates of the essential elements were included in the model.

At the elementary school level, the required curriculum and essential elements are roughly equivalent. At the secondary level, there is more room for electives and therefore a more extensive curriculum is required even for a minimum basic program. At the seventh and eighth grade levels, the essential elements suggest that in addition to the required curriculum, students take one half unit of health, art, music, and theater arts each year. At the high school level, these electives are expanded to include foreign languages.

#### Graduation Requirements

In order to receive a high school diploma, students in the Texas public schools must complete the courses incorporating both the required curriculum and the essential elements. It is on the basis of this 21 unit minimum basic program that the costs of a high school are modeled.

Table 3.1
Graduation Requirements

| | |
|---|---|
| English Language Arts | 4.0 Units |
| Mathematics | 3.0 Units |
| Science | 2.0 Units |
| Social Studies | 2.5 Units |
| Economics | 0.5 Units |
| Physical Education | 1.5 Units |
| Health Education | 0.5 Units |
| Electives | 7.0 Units |
| Total Requirements | 21.0 Units |

## TEACHER SALARY MODEL

The methodology employed to model minimum basic costs was based upon the 1986 Accountable Costs Advisory Committee study with some important modifications. First, the costs associated with the minimum basic program were divided into two components: teacher salary costs and other costs. Teacher salary costs were defined as the actual direct instructional costs of providing the required minimum basic curriculum. Other costs included selected non-salary instructional costs, as well as selected non-instructional costs. Although the two components used different methodologies for modeling costs, both performed all analyses on five different analysis groups that were created based on district size.

The teacher salary model used data from the classroom responsibility information submitted by school districts for Fall 1987 as part of the Public Information Management System (PEIMS) data collection. Analysis of this data afforded committee members the opportunity to study class size information, teacher load data, and actual salary information for each of the courses defined in the minimum basic program. The model built with each of these pieces of information resulted in a cost per pupil for the elementary, junior high, and high school grades. A total weighted average cost per pupil for teacher salaries was derived for all grades.

### School District Grouping

The 1986 advisory committee used a methodology which created 14 hypothetical model districts based upon groups of districts with similar characteristics. The groups in the 1986 study were distinguished by district size, district wealth, percent of students eligible to participate in the free and reduced price lunch program, and student test score performance. In the current study, committee members adopted a similar approach, but with several modifications. First, members reaffirmed their belief that costs vary with the size of the district. Rationales expressed by members included that larger districts offer more course selections and a wider curriculum and therefore may incur higher costs per pupil. Conversely, members hypothesized that larger districts may enjoy some economies of scale, whereas smaller districts may incur higher costs due to the smaller class sizes that result from a small student population. In either case, district size was believed to be a legitimate factor to be explored in the analysis of costs of the minimum basic program.

The other factors used in the 1986 study, district wealth, percent of students eligible for the free and reduced price lunch program, and student test scores, were not seen as legitimate parameters to include in the model methodology. Committee members could see no justification for hypothesizing that the cost of a minimum program is higher or lower in a district due to its property wealth. Similarly, the committee agreed that the percent of pupils on the free and reduced price lunch program is not a factor that affects the cost of providing the regular program, although it could be a factor important in the study of the cost of special programs.

In summary, district size was the sole factor used to determine the five analysis groups.

Districts were rank ordered according to their refined average daily attendance (ADA) and grouped into five categories containing approximately 20 percent of the statewide total ADA in each. Hypothetical model districts which typified each group were developed and a separate teacher salary cost analysis was performed on each hypothetical district. Descriptions of the groups and hypothetical districts are shown in Table 3.2.

Table 3.2
Definition of Groups for Teacher Salary Cost Models
Minimum Basic Program

| Grp. Nbr. | Description | Nbr. of Dist. | Refined ADA | Per-cent | Hypothetical Dist. Size |
|---|---|---|---|---|---|
| 1 | Under 2,555 ADA | 841 | 597,203 | 20.0% | 685 |
| 2 | 2,555 to 8,000 ADA | 142 | 597,788 | 20.0% | 4,155 |
| 3 | 8,000 to 19,200 ADA | 45 | 594,070 | 19.9% | 13,145 |
| 4 | 19,200 to 40,000 ADA | 21 | 580,518 | 19.4% | 27,610 |
| 5 | Over 40,000 ADA | 8 | 616,994 | 20.7% | 77,273 |
| | | 1,057 | 2,986,573 | 100.0% | |

Although the committee considered deleting some districts due to the presence of 22:1 waivers or a lowered accreditation status, ultimately all 1987-88 regular school districts were included in the development of the five analysis groups.

## Class Size Methodology

A key component of the calculation of minimum basic cost for teacher salaries was the determination of an appropriate class size to model. Class size data was researched for each of the elementary grades and for the junior high and high school required courses. Special attention was devoted to the development of the appropriate class size data for elective courses both at the junior high and high school levels.

For junior high and high school courses, class size was defined as the number of students reported on the classroom responsibility record where the time duration for a given teacher was unique. The values for beginning and ending times, days of week, and weeks of month were used to determine unique periods of time taught by each teacher. At the elementary grades, a different processing technique was used to ensure that students in self-contained classrooms were not counted multiple times, inappropriately inflating the enrollment for the elementary grades. After all unique classes were determined, a distribution of class sizes was developed for each elementary grade and for each required secondary course. In reviewing the resulting low and high values, the committee faced decisions regarding edits to be applied to reflect reasonable caution in examining these extremes. For the elementary grades, edits were made such that any classes greater than 35 in size were deleted. At the junior high and high school level, classes greater than 40 in size were deleted. Class size values greater than these were assumed to represent peculiarities in data reporting behavior.

Electives were defined as any course not specifically defined as part of the required minimum basic curriculum. They were further grouped into health, physical education, fine arts, foreign languages, and all other electives. Special problems with the number of students in class were encountered in the reporting of elective classes. Often several levels of electives were taught in the same class and so a third processing technique was developed to calculate the appropriate class size for electives. As with the required curriculum, the resulting distribution indicated some extreme class sizes that the processing technique could not resolve. In the case of electives, the committee decided that any class size greater than 97 would be discarded in order that the resulting analysis would be an appropriate reflection of a minimum cost per student.

After the edits, the remaining class size distributions were grouped into percentiles of students with breaks reported at the 50th, 65th, 75th, 85th, 90th, and 95th percentiles. Appendix A contains class size percentile tables for the required curriculum and for elective subject areas. A class size at the 85th percentile indicates that 85 percent of the students have classes smaller than the number indicated. Stated another way, the 85th percentile of class size represents the 15th percentile of teacher costs per student, because as class size declines, teacher costs increase when measured on a per student basis. The table below shows the conversion of class size percentiles to teacher cost per student percentiles.

Table 3.3
Relationship Between Class Size and Teacher Cost

| Class Size Percentile | Corresponding Percentile of Teacher Cost per Student |
|---|---|
| 50th (Smaller Class Size) | 50th (Higher Teacher Cost) |
| 65th | 35th |
| 75th | 25th |
| 85th | 15th |
| 90th | 10th |
| 95th (Larger Class Size) | 5th (Lower Teacher Cost) |

In its deliberations, the committee was reminded often of its charge to determine the cost of a minimum program, rather than a quality or average program. Thus, members were faced with the task of determining which class size percentile best represented a minimum program. After lengthy consideration of the costs associated with the percentiles shown in Appendix A, the committee selected the 85th percentile as the best representation of a minimum basic program for grades 5 and 6 and for all courses at the junior high and high school levels. For grades Kindergarten through 4, a class size of 20 was selected by the committee. Because grades K-4 may not exceed 22:1, the committee chose not to use the percentile information for these grades, but to model a reasonable class size based on compliance with the law.

For each course or grade for which percentiles of students were modeled, an average number of registrations was also determined. Registrations were defined as the total number of students enrolled in each course or grade, within each size group. Average registrations were calculated as the total number of students divided by the number of districts in each group. Average registrations divided by the corresponding class size results in an estimated number of sections needed. The next step in the instructional cost methodology was to determine the appropriate number of sections, or load, to assign to each teacher.

## Teacher Load and Average Salary

Research was undertaken to ascertain the standard number of sections taught by teachers. Committee members hypothesized that the average number of periods per day on junior high campuses was seven. Because all teachers have at least one planning and preparation period, six classes per day was the expected load for junior high teachers. Similarly, believing six periods per day to be the norm at the high school level, the committee expected five classes per day to be the standard teacher load for high school teachers.

In order to substantiate or revise these hypotheses, classroom level data was analyzed by the five size groups, by grade level, and by subject area taught. Distributions showing the number of teachers teaching various numbers of sections were produced. Interestingly, the number of sections taught only varied slightly by grade level. At both the junior high and high school levels the greatest frequency of teachers taught either five or six sections. Also, little variation was observed among subject areas. Given this information, the committee decided to model instructional costs using a teaching load of six sections per teacher for the junior high grade, and five sections per teacher for the high school grades. All subjects within grade level and all size groups were modeled alike. The elementary grades were modeled with a teacher load of one section per teacher.

Dividing the estimated number of sections needed by the average teacher load results in an estimated number of teachers needed. Fractions of teachers needed were rounded to the nearest tenth. An assumption embedded in this stage of the methodology is that fractions of teachers are available to the hypothetical model district. In reality, adjustments need to be made based upon the hypothetical district size. For example, a small district may only be able to satisfy its need for fractions of teachers by hiring additional new teachers. No adjustments were made in the model for these situations.

Average teacher salaries were calculated for each size group and grade level. These averages were based on the actual base salary reported by school districts in the size group, and do not contain career ladder or other supplements. The estimated number of teachers needed multiplied by the appropriate average salary results in the total instructional cost for each course or grade.

Cost of Regular Instruction

By establishing a spreadsheet form of analysis for each size group, models of per student cost could be built with the components previously identified. The spreadsheets for each size group are shown in Appendix B.

The calculation process for each grade or course involved the following steps:

- Estimate total number of students registered for each grade or course
- Based on class size chosen, calculate the number of sections needed
- Divide the number of sections by the teacher load factor to determine number of teachers required
- Multiply the number of teachers required by the appropriate teacher salary to determine total cost for the grade or course
- Divide by the total number of student registrations
- Multiply by the typical number of registrations per student

The resulting figure represents the per student cost of the program. For elementary grades, a special adjustment was made to recognize that additional teachers would be required for self-contained classroom grades in order to provide the regular teacher with a planning period and duty free lunch. In some instances, the data supported the assumption that art, physical education, music, and other subjects provided the additional teacher, but the data did not support that conclusion for all cases.

After determining the cost per student at each grade grouping, a total weighted cost was derived for teacher salaries for all grade levels. This weighted average data is shown in the following table for all district groupings.

Table 3.4
Weighted Average Teacher Cost per Student
Minimum Basic Program

| Group | Elementary | Junior High | High School | Weighted Average |
|---|---|---|---|---|
| 1 | $1,135 | $915 | $980 | $1,069 |
| 2 | 1,187 | 909 | 934 | 1,083 |
| 3 | 1,223 | 935 | 954 | 1,117 |
| 4 | 1,251 | 999 | 992 | 1,151 |
| 5 | 1,240 | 925 | 948 | 1,129 |

The cost per student derived with this methodology is closest to a cost per student in membership, which means the cost per student in average daily attendance will be somewhat higher. Because the funding basis for public education is currently geared to an ADA measurement, some adjustment to the costs presented in the previous table would be appropriate in determining a basic allotment. Adjustments to the cost are discussed in later sections of this chapter.

## OTHER COSTS

Along with the analysis of teacher salaries in model districts, the advisory committee was presented with information regarding other costs which were directly or indirectly related to the regular program as defined for the study. These direct costs include supplies and materials used in the regular program; other salaries associated with the regular program, such as teacher aides and instructional administrators; various contracted services and other expenses identified by districts as directly related to the regular program. Indirect expenses, such as general administrative expenses and plant maintenance, cannot be clearly associated with the regular program, and must be allocated to the regular program. The construction of a representative set of model districts depends on the teacher salary models as well as the analysis of other costs.

### School District Grouping

The grouping of school districts for the other cost analysis was the same as the basis for the teacher salary models. District size was the sole factor used to determine a group for analysis purposes. A more detailed explanation and definition of groupings can be found in the section on teacher salary models in this chapter.

### Definition of Other Costs

As described above, a number of different costs were associated with the regular program of instruction as defined by the advisory committee. The first step in the process was an identification of appropriate functions and objects to be covered by the program definition. In Table 3.5 are lists of the functions and objects which the committee approved for inclusion in the analysis of other costs.

Specifically excluded from the lists are function/object combinations which represent teacher salaries, career ladder supplements, transportation, and food service expenses. These groupings were eliminated because other formulas exist in the Foundation School Program which provide allotments for these expenses, or because the items are modeled in the teacher salary component of the analysis.

Table 3.5
Functions and Objects Included in Analysis

| | Functions |
|---|---|
| 11 | Instruction |
| 12 | Instructional Computing |
| 21 | Instructional Administration |
| 22 | Instructional Resources and Media Services |
| 23 | School Administration |
| 24 | Instructional Research and Development |
| 25 | Curriculum and Personnel Development |
| 26 | Communication and Dissemination |
| 31 | Guidance and Counseling Services |
| 32 | Attendance and Social Work Services |
| 33 | Health Services |
| 36 | Cocurricular Activities |
| 41 | General Administration |
| 51 | Plant Maintenance and Operations |
| 52 | Facilities Acquisition and Construction |
| 71 | Management - Data Processing Services |
| 72 | Computer Processing - Data Processing Services |
| 73 | Development - Data Processing Services |
| 74 | Interfacing (Technical Assistance) - Data Processing Services |

| | Objects |
|---|---|
| 6111-6114 | Salaries and Wages, less Career Ladder Supplements |
| 6131-6139 | Other Payroll Payments |
| 6141-6149 | Employee Benefits |
| 6211-6213 | Legal, Audit, and Consulting |
| 6214 | Tax Collection |
| 6215 | Data Processing Services |
| 6216 | Pupil Appraisal |
| 6217-6219 | Cocurricular Events |
| 6231-6249 | Tuition and Fees, less Transportation |
| 6251-6259 | Regional Education Service Center Services, less Special and Vocational Education |
| 6261-6269 | Furniture and Equipment, less Buildings and Grounds |
| 6266-6267 | Buildings and Grounds |
| 6271-6279 | Utilities |
| 6281-6289 | Rentals |
| 6311-6319 | Supplies and Materials, Maintenance and Operations |
| 6321 | Audio-Visual Supplies and Materials |
| 6331-6339 | Books, Magazines, and Periodicals |
| 6341 | Testing Materials |
| 6391-6399 | Supplies and Materials, General |
| 6411-6414 | Travel and Subsistence |
| 6431-6439 | Insurance and Bonding Expenses |
| 6441 | Election Expenses |
| 6453-6499 | Miscellaneous Operating Expenses |
| 6521-6599 | Interest and Other Debt Service Expense |
| 6631-6639 | Furniture and Equipment Purchases |

The next step in the analysis was to determine a methodology for examining data related to other costs. The committee considered developing other costs for model districts using a modeling approach similar to that used for teacher salaries. After some discussion of the merits of that approach, the committee decided that an examination of the 1987-88 budgeted expenditures from the Fall 1987 data submission for the Public Education Information Management System (PEIMS) would provide sufficient information to accurately determine a per student cost for the study. The primary concern of the committee was that more detailed modeling would require a number of assumptions concerning campus size and other factors which varied considerably even within districts.

The analysis of expenditures per student were limited to the General Fund, and to expenditures which either were coded as "regular program" or were not coded for any special program. Because of these limitations and those placed on the functions to be examined, little data was found under certain objects, such as the principal repayment and leasing categories. Other object codes, such as pupil appraisal services, are generally associated with specific programs, and were not significant in the overall cost.

## Regular Program Budgeted Expenditures

As described in the preceding section, budgeted expenditures specifically associated with the regular program were examined. In reviewing data from school district budgets, the committee was faced with decisions regarding the level of aggregation of object codes, edits to be applied to data to reflect reasonable caution in examining extremes, and the appropriate reflection of a minimum cost per student.

The data for each object grouping described above was presented for all eligible functions. The single exception to that rule was the professional salary under the instruction function. This function/object combination was excluded because the costs were covered by the hypothetical district modeling process described previously. As an initial starting point in discussions, the staff presented the committee with data which reflected average expenditures per ADA for each of the object code groupings. These object groupings were presented for each district size group, based on the budgets of the membership of each group. After some examination, it was determined that extreme values for certain objects, representing district reporting problems, were affecting the averages. In order to provide a better reflection of actual budgeted expenditures, the staff was instructed to eliminate extremes from the analysis. In order to do so, the staff developed an algorithm which would eliminate the data for 20 percent of the student population at each end of the distribution of cost per student for each object in each size group. After the exclusions of high and low values, averages were again computed for each object grouping. These averages, labeled "Total", are presented for each of the district size groups in Table 3.6.

To provide a basis for comparison, the staff also presented object code detail for an alternate definition of minimum. Under this definition, the expenditures per student are ranked from lowest to highest for each object grouping. After eliminating the top and bottom 20 percent of students in

## Table 3.6

### Selected Instructional and Non-Instructional Costs
### Per Student Average Basis

### Regular Program Per Student Costs

| Object Groups | Group 1 < 2,555 ADA | Group 2 2,555 to 8,000 ADA | Group 3 8,001 to 19,200 ADA | Group 4 19,201 to 40,000 ADA | Group 5 > 40,000 ADA |
|---|---|---|---|---|---|
| 6110 - Salary | 51.19 | 51.46 | 56.13 | 76.84 | 63.70 |
| 6130 - Other Payroll Payments | 0.05 | 0.14 | 1.97 | 2.51 | 4.25 |
| 6140 - Employee Benefits | 44.91 | 44.18 | 55.80 | 66.13 | 69.41 |
| 6211 -- 6213 Legal, Audit, and Consulting | 0.08 | 0.16 | 0.10 | 0.22 | 0.47 |
| 6214 - Tax Collection | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6215 - Data Processing Services | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6216 - Pupil Appraisal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6217 -- 6219 Cocurricular Events, etc. | 0.33 | 0.12 | 0.28 | 0.27 | 1.02 |
| 6231, 6239, 6241, & 6249 - Tuition and Fees | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6251, 6252, 6259 - Media, Data Processing, and Other | 0.02 | 0.66 | 0.56 | 0.09 | 0.00 |
| 6261, 6262, 6263, 6264, & 6269 - Furniture and Equipment | 7.76 | 4.88 | 4.20 | 3.43 | 1.71 |
| 6266 -- 6267 Buildings and Grounds | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6270 - Utilities | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 6280 - Rentals | 0.38 | 1.16 | 1.07 | 1.27 | 0.70 |
| 6310 - Supplies and Materials, Maintenance and Operations | 1.21 | 0.86 | 0.61 | 1.39 | 1.42 |
| 6320 - Supplies and Materials, Audio-Visual | 0.38 | 0.38 | 0.31 | 0.30 | 0.96 |
| 6330 - Books, Magazines, Periodicals | 1.25 | 1.15 | 1.84 | 2.02 | 1.78 |
| 6340 - Testing Materials | 0.00 | 0.01 | 0.07 | 0.01 | 0.05 |
| 6390 - Supplies and Materials, General | 41.83 | 39.41 | 36.09 | 37.42 | 39.47 |
| 6410 - Travel and Subsistence | 2.63 | 2.66 | 2.14 | 1.49 | 0.67 |
| 6430 - Insurance and Bonding | 0.11 | 0.10 | 0.03 | 0.04 | 0.08 |
| 6440 - Election Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6453 -- 6499 Misc. Operating Expenses | 1.54 | 1.32 | 1.40 | 1.47 | 0.45 |
| 6521 -- 6599 Interest and Other Debt Service Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6630 - Furniture and Equipment Purchases | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 153.67 | 148.66 | 162.60 | 194.90 | 186.15 |
| Aggregation Of All Objects Before ADA Exclusions | 177.52 | 165.47 | 185.16 | 216.19 | 205.40 |

NOTE: All data shown has been systematically adjusted to exclude extreme per student values

Table 3.7

Selected Instructional and Non-Instructional Costs
Per Student 15th Percentile Basis

Regular Program Per Student Costs

| Object Groups | Group 1 < 2,555 ADA | Group 2 2,555 to 8,000 ADA | Group 3 8,001 to 19,200 ADA | Group 4 19,201 to 40,000 ADA | Group 5 > 40,000 ADA |
|---|---|---|---|---|---|
| 6110 - Salary | 30.16 | 34.56 | 41.20 | 48.15 | 50.21 |
| 6130 - Other Payroll Payments | 0.00 | 0.00 | 0.00 | 0.00 | 0.69 |
| 6140 - Employee Benefits | 26.32 | 27.46 | 35.86 | 49.78 | 61.63 |
| 6211 -- 6213 Legal, Audit, and Consulting | 0.00 | 0.00 | 0.00 | 0.02 | 0.13 |
| 6214 - Tax Collection | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6215 - Data Processing Services | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6216 - Pupil Appraisal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6217 -- 6219 Cocurricular Events, etc. | 0.00 | 0.00 | 0.00 | 0.00 | 0.93 |
| 6231, 6239, 6241, & 6249 - Tuition and Fees | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6251, 6252, 6259 - Media, Data Processing, and Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6261, 6262, 6263, 6264, & 6269 - Furniture and Equipment | 4.57 | 3.09 | 2.41 | 1.50 | 1.08 |
| 6266 -- 6267 Buildings and Grounds | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6270 - Utilities | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6280 - Rentals | 0.00 | 0.00 | 0.00 | 0.22 | 0.52 |
| 6310 - Supplies and Materials, Maintenance and Operations | 0.00 | 0.09 | 0.03 | 0.21 | 0.11 |
| 6320 - Supplies and Materials, Audio-Visual | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 |
| 6330 - Books, Magazines, Periodicals | 0.00 | 0.17 | 0.46 | 0.08 | 0.79 |
| 6340 - Testing Materials | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6390 - Supplies and Materials, General | 33.90 | 32.57 | 29.60 | 31.18 | 34.68 |
| 6410 - Travel and Subsistence | 1.26 | 1.74 | 0.87 | 0.82 | 0.07 |
| 6430 - Insurance and Bonding | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6440 - Election Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6453 -- 6499 Misc. Operating Expenses | 0.30 | 0.49 | 0.19 | 0.23 | 0.25 |
| 6521 -- 6599 Interest and Other Debt Service Expenses | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6630 - Furniture and Equipment Purchases | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 96.51 | 100.17 | 110.62 | 132.19 | 151.51 |
| Aggregation Of All Objects Before ADA Exclusions | 130.65 | 132.76 | 134.87 | 166.10 | 195.79 |

NOTE: All data shown has been systematically adjusted to exclude extreme per student values each size group, percentiles of the remaining population of students were calculated. The staff presented an alternate minimum cost based on the 15th percentile as determined in the ranking process. These values are shown as "Total" in Table 3.7.

The committee also was presented with an alternative method of examining the data on expenditures per student. When data were aggregated for all functions and objects before the exclusion of the top and bottom 20 percent of students, the results of the analysis were slightly different. This result is believed to happen because the isolation of budgetary detail for object groupings leads to a distorted picture of school district budgeting behavior. In essence, the districts which are eliminated at the object grouping level for having extreme values are not always the same district. This leads to an unusually low result in some cases.

In its deliberations, the committee determined that the aggregation of all eligible objects across all eligible functions would present a better picture of actual practice. These aggregations are shown at the bottom of Tables 3.6 and 3.7 and are labeled "Aggregation Of All Objects Before ADA Exclusions". A comparison of average, 35th percentile, and 15th percentile costs is shown in Table 3.8. The committee chose the 15th percentile as a minimum basic level.

Table 3.8
Alternative Regular Program Budgeted Cost per Student
Excluding Teacher Salaries
Minimum Basic Program

| Group | 15th Percentile | 35th Percentile | Average |
|---|---|---|---|
| 1 | 130.65 | 155.73 | 177.52 |
| 2 | 132.76 | 146.05 | 165.47 |
| 3 | 134.8[illegible] | 155.49 | 185.16 |
| 4 | 166.10 | 200.72 | 216.19 |
| 5 | 195.79 | 195.79 | 205.40 |

## Generic Budgeted Expenditures

Budgeted expenditures not specifically associated with a program are known as "generic" expenditures. Some portion of these costs are assumed to arise as a result of the operations of the regular program, but no satisfactory cost allocation system is used by the school district for assignment of those costs to specific programs. Examples would be the utilities expense for a building housing regular program and special program students, or the cost associated with the superintendent's office. The advisory committee also considered these expenses in determining the cost of a minimum program.

The methodology used for analysis of generic expenditures for each size group was the same as that used for the regular program budgeted funds.

The same edits for expenditures in the top and bottom 20 percent of students were applied to the data, and the same percentiles were examined. The one additional complexity of the generic costs involves the allocation of costs to the regular program.

The committee examined three alternative allocation systems. Under the first system, generic budgeted expenditures were allocated in proportion to the percentage of total program funds identified as regular. This percentage was determined by analyzing the budget data submitted by school districts. The results of this analysis are presented in Table 3.9. By using the first methodology for generic cost allocation, approximately 75 percent of all eligible generic costs as defined above would be allocated to the regular program.

Table 3.9
Regular Program Budgeted Funds as a
Percentage of all Program Budgets

| District Size (ADA) Group | Regular Program Percentage | Special Program Percentage |
|---|---|---|
| Less than 2,555 | 76.7% | 23.3% |
| 2,555 to 8,000 | 74.9% | 25.1% |
| 8,000 to 19,200 | 74.0% | 26.0% |
| 19,200 to 40,000 | 75.3% | 24.7% |
| Greater than 40,000 | 74.3% | 25.7% |

The second allocation system was similar to the first, except the basis is weighted students instead of budgeted funds. This system would allocate generic costs to the regular program in proportion to the percentage of total weighted students identified as regular. For this purpose, weighted students were identified for each district using the statutory weights and appropriate counts for student populations for the 1987-88 school year. The results are presented in Table 3.10. This analysis would allocate approximately 79 percent of all generic budgeted expenditures to the regular program.

Table 3.10
Regular Program ADA as a
Percentage of Total Weighted ADA

| District Size (ADA) Group | Regular Program Percentage | Special Program Percentage |
|---|---|---|
| Less than 2,555 | 78.1% | 21.9% |
| 2,555 to 8,000 | 78.9% | 21.1% |
| 8,000 to 19,200 | 78.8% | 21.2% |
| 19,200 to 40,000 | 81.0% | 19.0% |
| Greater than 40,000 | 75.8% | 24.2% |

The third system for allocation was based on subtracting the indirect costs allowed for special programs under State Board of Education rules from the generic budgeted expenditures, then allocating the remainder to the regular program. The percentage of generic funds which would be assigned to the regular program under this methodology are presented in Table 3.11. The results of this methodology would allocate a significantly higher percentage of the generic funds to the regular program than the other two systems. The rationale for this allocation basis was that as long as board rules limit the amount of the allotment for special programs which may be spent on indirect activities, those indirect costs not recognized by board rules should be incorporated into the regular program cost.

**Table 3.11**
**Generic Budgeted Funds after Reduction for Allowable Indirect Costs**

| District Size (ADA) Group | Generic Percentage Excluding Allowable Indirect Costs | Special Program Indirect Allowable Percentage |
|---|---|---|
| Less than 2,555 | 95.5% | 4.5% |
| 2,555 to 8,000 | 95.8% | 4.2% |
| 8,000 to 19,200 | 95.2% | 4.8% |
| 19,200 to 40,000 | 96.0% | 4.0% |
| Greater than 40,000 | 93.3% | 6.7% |

The committee determined the most appropriate allocation basis to be the first method, which tracks the pattern of programmatically budgeted expenses. As described for the regular program budgeted expenses, the committee examined several alternatives for the appropriate level to describe as a minimum program for the generic costs. The three alternatives seriously considered by the committee are shown in Table 3.12. The committee determined that the 15th percentile of cost per student best represented the minimum level.

**Table 3.12**
**Alternative Generic Budgeted Costs per Student Minimum Basic Program**

| Group | 15th Percentile | 35th Percentile | 50th Percentile |
|---|---|---|---|
| 1 | 706.42 | 779.78 | 834.44 |
| 2 | 675.02 | 728.93 | 764.04 |
| 3 | 691.77 | 723.48 | 748.11 |
| 4 | 701.76 | 751.28 | 779.45 |
| 5 | 684.53 | 704.35 | 743.49 |

## BASIC ALLOTMENT CONSIDERATIONS

After determining the appropriate cost level for the teacher salary component, the regular program component, and the generic expense component, the committee established the best methodology for building a composite cost for the minimum basic program. This composite cost would form the basis for a basic allotment recommendation to the State Board of Education. Composites for the 15th, 35th, and 50th percentiles of cost are shown in Table 3.13.

In building the composite cost value, the committee made several adjustments to the results to more accurately reflect the impact of various formula adjustments and other effects on the basic allotment. The first adjustment involved increase of the instructional salary cost component to reflect the different fiscal implications of using a membership basis such as class size versus the funding basis of average daily attendance. The difference on average was an increase of 4.2 percent in the teacher salary component for each district size group.

The next series of adjustments involved reductions for the various adjustments caused by other components in the Foundation School Program. A reduction for the impact of the Price Differential Index was made for the teacher salary component only, based on the 1988 PDI Advisory Committee's recommended index. Reductions were also made for the funds associated with the experienced teacher allotment and the portions of the education improvement allotment not associated with career ladder payments. After these adjustments, an average cost for groups 2 through 5 was determined, excluding group 1 due to problems in dealing with very small districts without recognizing the effects that class size has on cost more appropriately.

As a result of the adjustments described above, the committee had determined a basic allotment appropriate to the 1987-88 school year. The committee added inflation as projected by the Comptroller of Public Accounts for each of the forthcoming school years.

The committee's recommended basic allotments for the next biennium are $1890 for 1989-90 and $1973 for 1990-91 based on this methodology. Details of the adjustments are shown in Table 3.14.

Table 3.13
**Composite Cost of the Minimum Basic Program**

| | Regular Program Per Student Cost | Generic Per Student Cost | Instructional Salaries* | Combined Total |
|---|---|---|---|---|
| **Group 1 Model District Size is 685 Students** | | | | |
| 15th Percentile | 130.65 | 706.42 | 1,113.90 | **1,950.97** |
| 35th Percentile | 155.73 | 779.78 | 1,248.32 | **2,183.83** |
| 50th Percentile | 177.52 | 834.44 | 1,256.65 | **2,268.61** |
| **Group 2 Model District Size is 4,155 Students** | | | | |
| 15th Percentile | 132.76 | 675.02 | 1,128.49 | **1,936.27** |
| 35th Percentile | 146.05 | 728.93 | 1,207.68 | **2,082.65** |
| 50th Percentile | 165.47 | 764.04 | 1,241.02 | **2,170.53** |
| **Group 3 Model District Size is 13,145 Students** | | | | |
| 15th Percentile | 134.87 | 691.77 | 1,163.91 | **1,990.55** |
| 35th Percentile | 155.49 | 723.48 | 1,243.11 | **2,122.07** |
| 50th Percentile | 185.16 | 748.11 | 1,295.21 | **2,228.47** |
| **Group 4 Model District Size is 27,610 Students** | | | | |
| 15th Percentile | 166.10 | 701.76 | 1,199.34 | **2,067.20** |
| 35th Percentile | 200.72 | 751.28 | 1,273.32 | **2,225.33** |
| 50th Percentile | 216.19 | 779.45 | 1,329.59 | **2,325.24** |
| **Group 5 Model District Size is 77,273 Students** | | | | |
| 15th Percentile | 195.79 | 684.53 | 1,176.42 | **2,056.74** |
| 35th Percentile | 195.79 | 704.35 | 1,230.60 | **2,130.74** |
| 50th Percentile | 205.40 | 743.49 | 1,273.32 | **2,222.21** |

*Instructional salaries have been inflated to reflect the difference between ADA and Membership.
NOTE: All data shown has been systematically adjusted to exclude extreme per student values.

Table 3.14
Minimum Basic Cost Findings

| | Districts 2,555 to 8,000 ADA | Districts 8,001 to 19,000 ADA | Districts 19,001 to 40,000 ADA | Districts 40,001 ADA and Above |
|---|---|---|---|---|
| Instructional Salaries Per ADA | 1,128.49 | 1,163.91 | 1,199.34 | 1,176.42 |
| Other Regular Program Budgeted Cost Per ADA | 132.76 | 134.87 | 166.10 | 195.76 |
| Generic Cost Per Student | 675.02 | 691.77 | 701.76 | 684.53 |
| Combined Total Regular Program Cost Per ADA | 1,936.27 | 1,990.55 | 2,067.20 | 2,056.74 |
| Less Reduction for PDI Adjustment | 159.41 | 189.68 | 202.96 | 219.12 |
| Less Reduction for Experienced Teacher | 19.00 | 19.00 | 19.00 | 19.00 |
| Less Education Improvement | 70.00 | 70.00 | 70.00 | 70.00 |
| Net (Equivalent of Basic Allotment) | 1,687.86 | 1,711.87 | 1,775.24 | 1,748.62 |

Inflation Adjustment of Basic Allotment Recommendation

| | |
|---|---|
| **Average of Groups 2-5, 1987-88** | **1,730.89** |
| Inflated 4.68% for 1988-89 | 1,811.90 |
| Inflated 4.29% for 1989-90 | 1,889.63 |
| Inflated 4.39% for 1990-91 | 1,972.59 |

CHAPTER 4

# STUDY OF SCHOOL FACILITIES[1]

## BACKGROUND AND PURPOSE

### The Need to Study School Facilities

School facilities represent an area where the state has had little previous involvement. Historically, the responsibility for financing, constructing and maintaining school buildings has rested solely with the local school districts. However, recent events, including Judge Harley Clark's decision in Edgewood v. Kirby in which he states that funding for school facilities as well as maintenance and operation must be equalized, has made the study of school facilities funding an important issue, and one that needs to be examined in some detail.

In an effort to gain greater understanding about school facilities in Texas, the State Board of Education included the study of school facilities in its charges to the Accountable Costs Advisory Committee. In response to this charge, the Committee and staff brought together a panel of architects and facilities experts to provide background on the facilities issue, identified appropriate sources of information on school facilities, and developed the inquiry based on a series of questions concerning the conditions, quality, needs and costs of school facilities in the districts throughout the state.[2]

After this meeting it became clear there would be a great deal of work to be done in terms of studying school facilities and that much of the work would be beyond the scope of this Committee. At some point, it will be necessary for Texas to undertake an inventory of school facilities, and at that time information provided to the Committee by the State of Florida would serve as a useful template in developing an inventory structure.

The Florida system records information at the campus, building and room level. This detailed information is available for every school building in the state. While this Committee would not advocate the complete or immediate adoption of the Florida system, it would suggest that the Florida model provides an excellent foundation for developing an approach to studying school facilities in Texas.

1This report deals only with the financing of school buildings and essential equipment, such as fixtures, plumbing, desks, science labs. It does not deal with items such as site acquisition, computers or other capital outlay not associated with the construction of school buildings.
2A list of the panel members who participated in this discussion can be found in Appendix C.

## Information about School Facilities

The Texas Education Agency maintains no information concerning public school facilities in the state. The most comprehensive information available for analysis comes from the Texas School Services Foundation (TSSF). Although this data is collected and maintained primarily for insurance purposes, it provides a sample from which an initial analysis of school facilities can be conducted. The database contains a vast amount of information about school facilities in the state and provides a fairly representative sample of school districts throughout the state.

## Characteristics of Districts in the Texas School Services Foundation Dataset

The TSSF dataset constitutes a representative sample of districts in the state. The dataset contains information for 514 districts of varying size, wealth and geographic distribution. As seen in Table 4.1, districts in the dataset represent almost half of all districts in the state, and 40 percent of the state's average daily attendance. The districts are also distributed evenly across wealth groups and geographic regions.

When the data was transmitted to the Texas Education Agency, the buildings contained in the TSSF dataset did not have an associated campus number. In order to perform analyses such as determining levels of space utilization and estimating the need for new space, it was necessary to match buildings to campuses. The staff was able to match roughly 70 percent of all buildings to a campus. The great majority of unmatched records are non-instructional facilities such as stadiums, light poles and fences. It was also difficult to assign portable buildings to campuses, although in some cases, portables were assigned to an identifiable campus.

The information available on the dataset and used for analysis includes both the construction age and the effective age (as a result of renovation) of the building, building type, building value, contents value, cost per square foot, total square footage and building quality.[3]

The total value of existing space in the 514 districts in the TSSF dataset is approximately $7.4 billion. Based on this information, the value of all buildings in the state can be estimated at approximately $18.5 billion.

In these districts nearly 145 million square feet can be classified as instructional space[4]. This space is valued at approximately $7.1 billion and represents an average of 125 square feet of instructional space per student in all districts in the sample. For all of the analyses that follow, utilization rates, defined as square feet per student, were calculated as:

$$\frac{\text{Square feet of space in the TSSF sample dataset}}{\text{1987 Fall Survey Enrollment}^{5}}$$

3Definitions of variables used in the analysis of school facilities are contained in Appendix D.
4For the purposes of this study, instructional space is defined as Auditorium, Cafeteria, Classroom, Gymnasium, Library space and Portable Buildings.
5Fall survey enrollment rather than Average Daily Attendance (ADA) was used as the denominator in order to estimate as closely as possible the number of

TABLE 4 1
CHARACTERISTICS OF OISTRICTS IN THE TEXAS SCHOOL SERVICES FOUNDATION SAMPLE OATASET

| NBR OIST | CATEGORY | NBR OF DISTS IN SAMPLE | PCT OF DISTS IN SAMPLE | REFINED ADA IN CATEGORY | REFINEO ADA IN SAMPLE | PCT OF RADA IN SAMPLE |
|---|---|---|---|---|---|---|
| | ADA GROUPINGS | | | | | |
| 6 | OVER --- 50,000 | 2 | 33 3 | 529,987 | 234,987 | 44 3 |
| 14 | 25,000 - 49,999 | 2 | 14.3 | 468,609 | 83,104 | 17 7 |
| 42 | 10,000 - 24,999 | 12 | 28.6 | 675,414 | 216,584 | 32 1 |
| 44 | 5,000 - 9,999 | 23 | 52.3 | 292,558 | 150,184 | 51 3 |
| 89 | 3,000 - 4,999 | 46 | 51.7 | 346,636 | 176,697 | 51 0 |
| 112 | 1,600 - 2,999 | 57 | 50.9 | 243,232 | 120,492 | 49.5 |
| 128 | 1,000 - 1,599 | 65 | 51.6 | 162,548 | 83,922 | 51 6 |
| 206 | 500 - 999 | 99 | 48.1 | 147,538 | 71,799 | 48 7 |
| 418 | UNDER -- 500 | 208 | 49.8 | 100,054 | 47,645 | 47.6 |
| | DISTRICT TYPE | | | | | |
| 8 | MAJOR URBAN | 3 | 37.5 | 613,524 | 280,619 | 45 7 |
| 60 | MAJOR SUBURBAN | 21 | 35.0 | 789,323 | 218,439 | 27.7 |
| 23 | OTHER CENTRAL CITY | 6 | 26.1 | 389,634 | 99,828 | 25.7 |
| 73 | OTHER CC SUBURBAN | 33 | 45.2 | 250,387 | 120,408 | 48.1 |
| 66 | INDEPENDENT TOWN | 33 | 50 0 | 283,895 | 131,971 | 46 5 |
| 140 | NON-METRO FAST GROWING | 66 | 47 1 | 157,354 | 75,149 | 47 8 |
| 222 | NON-METRO STABLE | 124 | 55.9 | 347,274 | 194,913 | 56.1 |
| 465 | RURAL | 228 | 49.0 | 136,105 | 64,070 | 47.1 |
| | WEALTH (MEOIAN=$165,828) | | | | | |
| 105 | UNDER $86,887 | 50 | 47.6 | 370,738 | 207,828 | 56.1 |
| 106 | $86,887 - $104,897 | 56 | 52.8 | 158,768 | 85,721 | 54 0 |
| 106 | $104,898 - $121,042 | 51 | 48.1 | 119,928 | 52,585 | 43.8 |
| 106 | $121,043 - $142,034 | 54 | 50.9 | 251,718 | 122,349 | 48 6 |
| 106 | $142,035 - $165,828 | 51 | 48 1 | 303,664 | 118,311 | 39.0 |
| 105 | $165,829 - $198,512 | 44 | 41.9 | 281,132 | 63,023 | 22.4 |
| 106 | $198,513 - $242,537 | 51 | 48.1 | 364,681 | 104,453 | 28.6 |
| 106 | $242,538 - $308,301 | 57 | 53.8 | 553,422 | 290,113 | 52.4 |
| 106 | $308,302 - $484,159 | 55 | 51.9 | 486,471 | 122,483 | 25.2 |
| 105 | OVER $484,159 | 45 | 42.9 | 76,055 | 18,531 | 24.4 |
| | WEALTH (ST AVG=$227,459) | | | | | |
| 708 | UNDER $227,459 | 343 | 48 4 | 1,727,103 | 721,791 | 41 9 |
| 349 | OVER $227,459 | 171 | 49.0 | 1,239,473 | 463,604 | 37.4 |
| | M&O EFF. TAX EFFORT (MEOIAN=$0.6739) | | | | | |
| 264 | UNDER 0.5400 | 110 | 41.7 | 672,035 | 260,966 | 38 8 |
| 265 | 0.5400 - 0.6738 | 125 | 47 2 | 1,102,269 | 505,518 | 45 9 |
| 264 | 0.6739 - 0.8188 | 132 | 50.0 | 836,091 | 252,685 | 30.2 |
| 264 | OVER 0.8188 | 147 | 55.7 | 356,181 | 166,225 | 46.7 |
| | M&O EFF. TAX EFFORT (ST AVG=$0.6425) | | | | | |
| 464 | UNDER 0 6425 | 204 | 44 0 | 1,643,188 | 699,621 | 42 6 |
| 593 | OVER 0.6425 | 310 | 52 3 | 1,323,388 | 485,774 | 36.7 |
| 1,057 | STATE TOTAL | 514 | 48 6 | 2,966,576 | 1,185,395 | 40 0 |

TABLE 4 1
CHARACTERISTICS OF DISTRICTS IN THE TEXAS SCHOOL SERVICES FOUNDATION SAMPLE DATASET

| NBR DIST | CATEGORY | NBR OF DISTS IN SAMPLE | PCT OF DISTS IN SAMPLE | REFINED ADA IN CATEGORY | REFINED ADA IN SAMPLE | PCT OF RADA IN SAMPLE |
|---|---|---|---|---|---|---|
| | **BLACK PERCENT (ST AVG=14.65%)** | | | | | |
| 640 | UNDER 5% | 325 | 50 8 | 1.084,688 | 489,742 | 44 7 |
| 128 | 5% TO UNDER 10% | 57 | 44 5 | 585,703 | 192,899 | 32 9 |
| 138 | 10% TO UNDER 20% | 61 | 44 2 | 477,389 | 194,770 | 40 8 |
| 77 | 20% TO UNDER 30% | 39 | 50 6 | 254,737 | 61,825 | 24 3 |
| 62 | 30% TO UNDER 50% | 29 | 46 8 | 487,358 | 228,797 | 46 0 |
| 12 | 50% AND OVER | 3 | 25.0 | 58,890 | 17,462 | 30 8 |
| | **HISPANIC PERCENT (ST AVG=31 52%)** | | | | | |
| 344 | UNDER 5% | 162 | 47 1 | 490,565 | 194,480 | 39 6 |
| 162 | 5% TO UNDER 10% | 77 | 47 5 | 441,447 | 189,731 | 43 0 |
| 158 | 10% TO UNDER 20% | 80 | 50.6 | 397,314 | 176,383 | 44 4 |
| 85 | 20% TO UNDER 30% | 47 | 49 5 | 485,283 | 77,012 | 15 8 |
| 124 | 30% TO UNDER 50% | 52 | 41 9 | 544,489 | 236,383 | 43 4 |
| 174 | 50% AND OVER | 86 | 55 2 | 607,468 | 311,406 | 51 3 |
| | **MINORITY PERCENT (ST AVG=48 18%)** | | | | | |
| 131 | UNDER 5% | 68 | 51 9 | 93,081 | 50,409 | 54 2 |
| 128 | 5% TO UNDER 10% | 63 | 49 2 | 151,932 | 73,429 | 48 3 |
| 192 | 10% TO UNDER 20% | 87 | 45 3 | 387,205 | 168,747 | 43 6 |
| 151 | 20% TO UNDER 30% | 66 | 43 7 | 374,[illegible] | 108,009 | 28 8 |
| 216 | 30% TO UNDER 50% | 106 | 49 1 | 618,2[illegible] | 214,753 | 34 7 |
| 238 | 50% AND OVER | 124 | 51.9 | 1,341,227 | 570,048 | 42 5 |
| | **REGION** | | | | | |
| 37 | I EDINBURG | 25 | 67 6 | 204,602 | 110,425 | 54 0 |
| 44 | II CORPUS CHRISTI | 19 | 43 2 | 102,056 | 22,188 | 21 8 |
| 41 | III VICTORIA | 17 | 41.5 | 52,310 | 17,821 | 34 1 |
| 55 | IV HOUSTON | 25 | 45 5 | 603,681 | 262,481 | 43 5 |
| 29 | V BEAUMONT | 16 | 55.2 | 78,829 | 30,422 | 38 1 |
| 57 | VI HUNTSVILLE | 27 | 47 4 | 94,025 | 52,315 | 55 6 |
| 88 | VII KILGORE | 37 | 37.4 | 141,504 | 43,507 | 30 7 |
| 48 | VIII MT PLEASANT | 24 | 50 0 | 50,772 | 30,694 | 60 5 |
| 40 | IX WICHITA FALLS | 25 | 62 5 | 37,958 | 18,318 | 48 3 |
| 80 | X RICHARDSON | 35 | 43 8 | 381,544 | 111,225 | 28 4 |
| 77 | XI FORT WORTH | 47 | 61 0 | 259,443 | 105,094 | 40 5 |
| 79 | XII WACO | 31 | 39 2 | 100,231 | 21,292 | 21 2 |
| 56 | XIII AUSTIN | 30 | 53 6 | 170,134 | 71,823 | 42 2 |
| 47 | XIV ABILENE | 28 | 59 6 | 45,165 | 19,839 | 43 8 |
| 45 | XV SAN ANGELO | 24 | 53 3 | 45,233 | 13,044 | 28 8 |
| 68 | XVI AMARILLO | [illegible]7 | 54.4 | 70,529 | 43,461 | 61 6 |
| 62 | XVII LUBBOCK | 34 | 54.8 | 76,265 | 32,711 | 42 8 |
| 33 | XVIII MIDLAND | 11 | 33 3 | 72,602 | 23,244 | 32 0 |
| 13 | XIX EL PASO | 3 | 23 1 | 117,758 | 47,617 | 40 4 |
| 47 | XX SAN ANTONIO | 19 | 40 4 | 250,834 | 107,865 | 43 0 |
| | **SPTB HIGHEST CATEGORY** | | | | | |
| 333 | RESIDENTIAL | 151 | 45 3 | 1,748,752 | 580,206 | 33 2 |
| 356 | LAND | 184 | 51 7 | 177,770 | 98,424 | 55 4 |
| 198 | OIL AND GAS | 102 | 51 5 | 174,752 | 81,286 | 46 5 |
| 170 | BUSINESS | 77 | 45 3 | 885,302 | 425,480 | 48 2 |
| 1,057 | STATE TOTAL | 514 | 48 6 | 2,966,576 | 1,185,395 | 40 0 |

TABLE 4.
CHARACTERISTICS OF OISTRICTS IN THE TEXAS SCHOOL SERVICES FOUNDATION SAMPLE OATASET

| NBR OIST | CATEGORY | NBR OF OISTS IN SAMPLE | PCT OF OISTS IN SAMPLE | REFINEO ADA IN CATEGORY | REFINEO AOA IN SAMPLE | PCT OF RADA IN SAMPLE |
|---|---|---|---|---|---|---|
| POI LEVEL (MEOIAN=1.0803) | | | | | | |
| 211 | UNDER 1.0412 | 117 | 55.5 | 33,778 | 19,302 | 57.1 |
| 212 | 1.0412 - 1.0688 | 102 | 48.1 | 89,368 | 45,600 | 51.0 |
| 211 | 1.0689 - 1.0921 | 98 | 46.4 | 170,622 | 80,505 | 47.2 |
| 213 | 1.0922 - 1.1332 | 112 | 52.6 | 379,175 | 220,565 | 58.2 |
| 210 | OVER 1.1332 | 85 | 40.5 | 2,293,633 | 819,423 | 35.7 |
| PERCENT LOW INCOME (ST AVG=38.25%) | | | | | | |
| 182 | UNDER 20% | 74 | 40.7 | 700,469 | 227,506 | 32 5 |
| 220 | 20% TO UNDER 30% | 117 | 53.2 | 450,698 | 190,010 | 42.2 |
| 205 | 30% TO UNDER 40% | 94 | 45.9 | 529,741 | 158,270 | 29.9 |
| 282 | 40% TO UNDER 60% | 141 | 50.0 | 803,414 | 368,567 | 45.9 |
| 108 | 60% TO UNDER 80% | 56 | 51.9 | 251,128 | 98,436 | 39 2 |
| 60 | 80% AND OVER | 32 | 53.3 | 231,126 | 142,608 | 61.7 |
| TEAMS: OISTRICT COMPOSITE SCORE | | | | | | |
| 216 | UNDER 763.2 | 106 | 49.1 | 734,457 | 456,931 | 62.2 |
| 261 | 763.2 - 779.7 | 126 | 48.3 | 747,152 | 206,310 | 27.6 |
| 294 | 779.8 - 786.8 | 140 | 47.6 | 739,206 | 250,695 | 33.9 |
| 282 | OVER 786.9 | 141 | 50.0 | 733,359 | 261,519 | 35.7 |
| 4 | NO COMPOSITE SCORE | 1 | 25.0 | 12,403 | 9,940 | 80.1 |
| OPERATING COST/ADA (ST AVG= $3,297) | | | | | | |
| 211 | UNDER $2,930 | 93 | 44.1 | 589,620 | 224,998 | 38.2 |
| 212 | $2,930-$3,258 | 103 | 48.6 | 999,154 | 352,298 | 35.3 |
| 211 | $3,259-$3,640 | 110 | 52.1 | 761,101 | 465,705 | 61.2 |
| 212 | $3,641-$4,381 | 105 | 49.5 | 520,907 | 105,995 | 2[illegible].3 |
| 211 | OVER $4,381 | 103 | 48.8 | 95,794 | 36,399 | 38.0 |
| RADA CHG:86/87-87/88 (ST AVG=0.58%) | | | | | | |
| 524 | DECLINING RADA | 253 | 48.3 | 1,344,993 | 629,317 | 46.8 |
| 295 | 0% TO UNDER 3% | 142 | 48.1 | 1,168,714 | 412,934 | 35.3 |
| 143 | 3% TO UNDER 6% | 72 | 50.3 | 364,033 | 100,706 | 27.7 |
| 51 | 6% TO UNDER 10% | 22 | 43.1 | 59,686 | 35,740 | 59.9 |
| 44 | 10% AND OVER | 25 | 56.8 | 29,151 | 6,698 | 23.0 |
| DENSITY (ST AVG=11.03 ADA/SQ MI) | | | | | | |
| 573 | LESS THAN 5 | 292 | 51.0 | 310,210 | 168,657 | 54.4 |
| 279 | 5 TO UNDER 20 | 137 | 49.1 | 467,341 | 241,413 | 51.7 |
| 118 | 20 TO UNDER 100 | 54 | 45.8 | 521,955 | 209,134 | 40.1 |
| 87 | 100 AND OVER | 31 | 35.6 | 1,667,070 | 566,191 | 34.0 |
| 1,057 | STATE TOTAL | 514 | 48.6 | 2,966,576 | 1,185,395 | 40.0 |

As seen in Table 4.2, classroom and gymnasium space represent the vast majority of all instructional space.

Table 4.2
Square Feet per Student by Use of Space

| Type of Space | Square Feet per Student |
|---|---|
| Auditorium | 4 |
| Cafeteria | 5 |
| Classroom | 112 |
| Gymnasium | 12 |
| Library | 2 |
| Portable | 1 |

Not only do utilization rates vary with the specific purpose of a space, these rates differ considerably from secondary to elementary schools, and within the category of elementary schools these rates are influenced by the existence of a waiver.[6]

Table 4.3
Square Feet per Student by Grade Level

| Grade Level | Square Feet per Student |
|---|---|
| All Grades | 136 |
| Secondary (7 - 12) | 146 |
| Elementary (1 - 6) | 99 |
| Elementary with Waiver | 89 |
| Elementary without Waiver | 106 |

As illustrated in Chart 4.1, the likelihood that a building will be renovated increases with age. Consequently, the amount of square footage in buildings with a low effective age is higher than the area in buildings with a similar construction age (Chart 4.2). Using information about the square footage and values of buildings, it is possible to calculate the percentage of buildings in an age cohort that will require renovation in a given time period, and in turn an estimate of the costs of renovation can be made.

It is difficult to estimate the cost of renovation relative to the cost of new construction. Many factors, including the age of the building and the quality of the original construction will figure significantly in determining whether it is more cost effective to renovate an old building or simply raze it and construct a new building on the site.

Another factor which influences the cost of a building is the type of construction. The buildings contained in the TSSF dataset are characterized by one of six construction types:

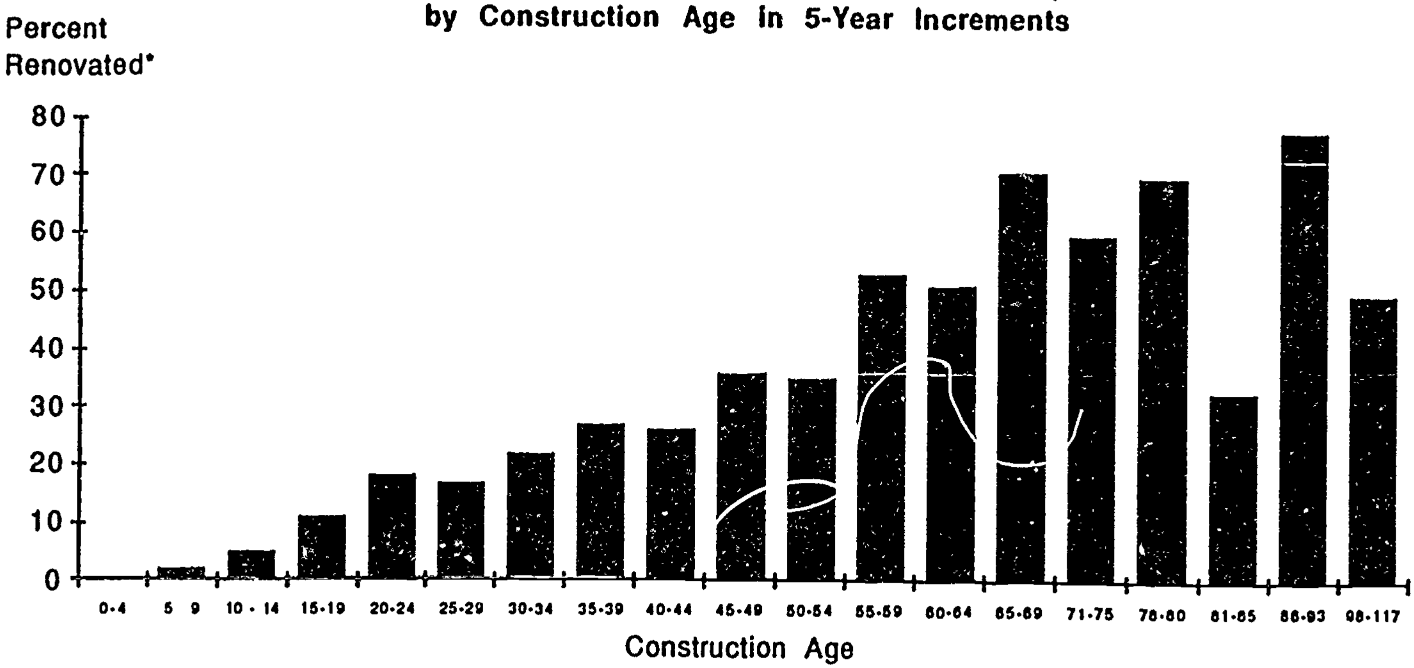
---

students who must be accommodated. Additionally, because of their unusual space needs, special education, disadvantaged pre-k and kindergarten counts were excluded from the analysis.

6The data used for this analysis came from the Division of Accreditation, and represents waivers from the maximum class size requirement in grades K - 2 for the fall semester of the 1987-1988 school year. The effect of the maximum class size requirement on school facilities and space utilization is discussed below in more detail.

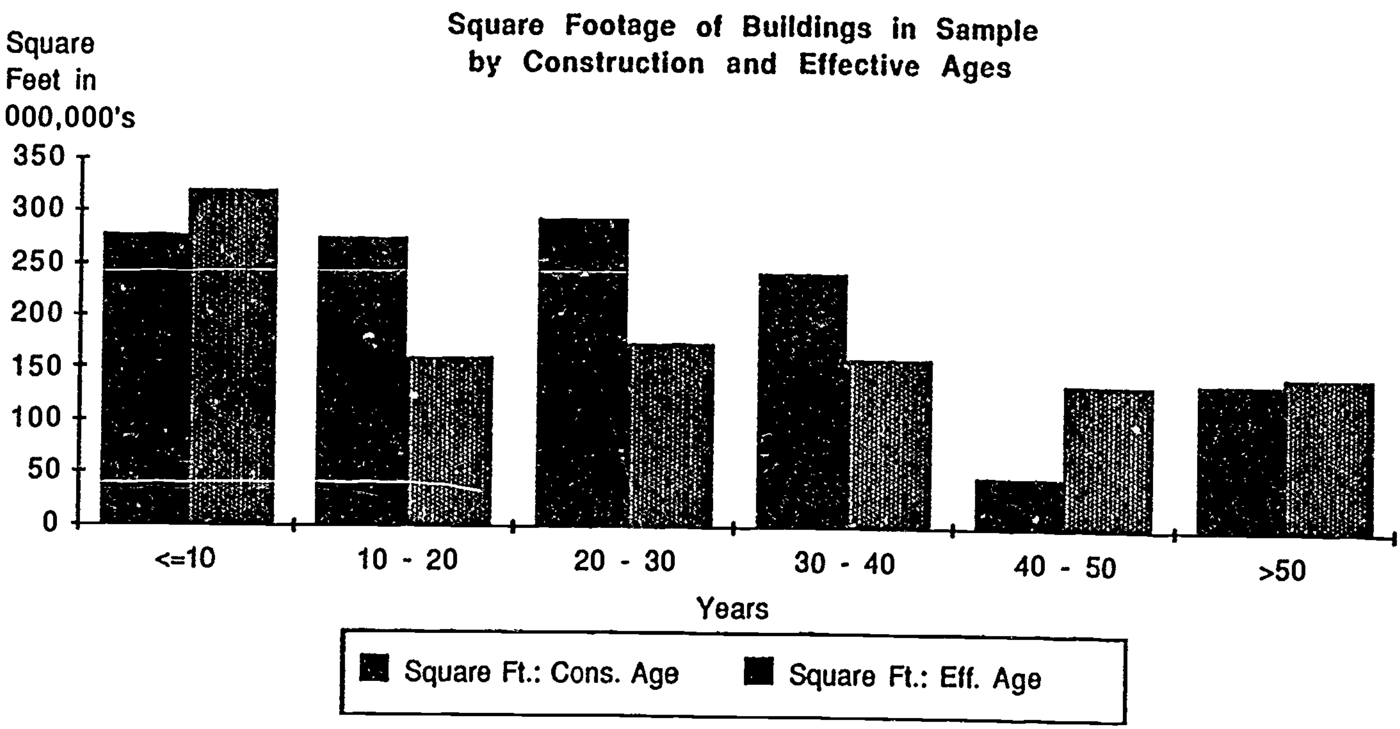
## CHART 4.1

### Percentage of Renovated Buildings in Sample by Construction Age in 5-Year Increments




*The percent of buildings in an age cohort which have undergone a renovation at any time since their construction. Buildings may have been renovated more than once.

CHART 4.2


Square Footage of Buildings in Sample
by Construction and Effective Ages
Square
Feet in
000,000's
350
300
250
200
150
100
50
0
<=10
10 - 20
20 - 30
30 - 40
40 - 50
>50
Years
Square Ft.: Cons. Age
Square Ft.: Eff. Age

frame, fire resistive, joisted masonry, modified fire resistive, masonry non-combustible and non-combustible.[7]

Table 4.4
Cost per Square Foot by Construction Type

| Construction Type | Cost per Square Foot |
|---|---|
| Frame | $30 |
| Fire Resistive | 58 |
| Joisted Masonry | 43 |
| Modified Fire Resistive | 50 |
| Masonry Non-Combustible | 48 |
| Non-Combustible | 44 |
| Portable | 21 |

Square footage and cost figures were obtained for 26 facilities in 8 school districts for projects involving construction of new buildings and construction of additions to existing buildings. Overall, the average cost per square foot equaled $54.79. Considerable differences exist when cost figures are analyzed by purpose of construction and type of facility.

High schools, middle schools and elementary schools were relatively close in average cost per square foot with middle schools costing the most ($57.84) and high schools the least ($50.80). When only new facilities were considered, however, high schools cost substantially more than other types of facilities. The situation is reversed for additions to existing facilities. In that instance, average cost for additions to elementary schools are the highest.

The range of costs was wider for high schools than for other types of schools. This difference may be attributable to the diversity of facility needs at the secondary level. Table 4.5 represents the average costs for new construction additions to facilities at all levels.

Table 4.5
Average Actual Construction Costs

| Type of Facility | Average Cost per Square Foot |
|---|---|
| All buildings | $54.79 |
| Only new facilities | 57.39 |
| Only additions | 50.62 |
| All high schools | 50.80 |
| Only new high schools | 70.97 |
| Only additions | 35.68 |
| All middle schools | 57.54 |
| Only new middle schools | 60.60 |
| Only additions | 48.34 |
| All elementary schools | 53.81 |
| Only new elementary schools | 52.35 |
| Only additions | 56.23 |

7Definitions for each construction type are contained in Appendix D.

## ESTIMATED INVESTMENT LEVELS FOR RENOVATION AND GROWTH

The need for investment in school facilities in Texas will be driven largely by the aging of structures currently in place, and changes in the characteristics and location of the student population. While none of these circumstances can be predicted with great certainty, the information available is sufficient for making estimates of the magnitude of the problem. Working from the information available at the Texas Education Agency and from that provided by TSSF, a number of estimates of the level of investment that will be required to renovate aging school facilities and to construct new facilities to accommodate growth in student population can be made.

The following estimate, based on both factual information and a variety of assumptions, provides time tables and cost estimates for the renovation of school facilities.

### Renovation Investment Level

#### Methodology and Estimates

Comparisons of construction age and effective age provide a means for evaluating both the useful life of a building, and the amount of renovation and new construction that will be needed to provide the state with adequate school facilities. The information in the TSSF dataset indicates that:

- Significant renovation seems to take place much earlier than 40 years of age. Data from TSSF can be used to construct a probability for renovation for buildings of various age groups, as shown below.

Table 4.6
Probability of Renovation

| Age in Years | Probability of Renovation | Square Feet | Building Value |
|---|---|---|---|
| 0-4 | 0% | 13,336,770 | 634,728,560 |
| 5-9 | 2% | 14,365,974 | 708,126,925 |
| 10-14 | 5% | 11,914,062 | 574,801,528 |
| 15-19 | 11% | 15,733,461 | 767,556,848 |
| 20-24 | 18% | 15,325,035 | 750,853,564 |
| 25-29 | 17% | 14,265,350 | 712,263,421 |
| 30-34 | 22% | 14,643,773 | 705,130,333 |
| 35-39 | 27% | 9,639,197 | 457,961,242 |
| 40-44 | 26% | 1,770,582 | 78,201,499 |
| 45-49 | 36% | 3,283,496 | 143,790,858 |
| 50-54 | 35% | 3,159,874 | 151,831,839 |
| 55-59 | 53% | 3,975,868 | 193,977,753 |
| 60+ | 100%[8] | 6,841,530 | 324,614,633 |

8The data do not actually reflect 100 percent renovation, although many individual ages show that level. It was assumed by staff that buildings still in use and constructed prior to 1928 must have undergone some significant

- If buildings are treated as cohort groups, the incremental renovation over a five year period can be estimated by applying the probabilities in the table above. By this methodology, it is estimated that the value of structures likely to be renovated over the next 5 years is $577.8 million for the sample.
- Renovation cost will be lower than total value in this model because relatively young structures are also included. As a proxy, 50% of the replacement cost value is used to estimate renovation cost.
- Investment level will be constant over a five year period.

Estimates:

| | |
|---|---|
| Value of buildings expected to be renovated | $577.8 million |
| Percent of total ADA represented in TSSF data | ÷ .40 |
| Estimated statewide value expected to be renovated | $1,444.5 million |
| Percent of value as basis for renovation | x .50 |
| Time period for renovation and growth | ÷ 5 years |
| Annual estimated investment level for renovation | $144.5 million |

This estimate should be considered in light of the following:

- First, the probability of renovation may be low for many age groups, which would tend to depress the estimates.
- No hard data exist on the type or price of renovations.
- The use of 50% as the percent of value as basis for renovation was chosen in an effort to account for the wide variations in cost which are possible in renovating buildings of various conditions and ages. It was assumed that newer buildings would cost less to renovate and that there would be a greater expense associated with older facilities. As a result, 50% was chosen as an approximate average of the costs of renovation.

Growth Investment Level

As with renovation, a variety of estimates of needed investment due to growth in student population can be calculated based on available information and several sets of assumptions.

---

renovation which was not recorded. It may also be legitimate to assume that all of the renovation probabilities are low, since this was not a crucial element in the data collection by TSSF.

Initially, several approaches were taken in order to estimate the costs of providing facilities to meet the growth in student population. Ultimately, a single approach which takes into account both gross increases in student population and the effects of migration across the state was chosen as the cost estimate most likely to reflect true conditions in the state.

Before settling on the estimate calculated below, both an estimate based on net growth and an estimate based on a one year gross increase in population were examined. The estimate based solely on net growth was rejected because it did not account for cross state migrations. Although students can move throughout the state, school facilities cannot, and it was felt that this estimate would understate the need for school facilities. Likewise, the estimate based on a gross increase in a single year was rejected because it did not provide an accurate reflection of even the short term needs of the state for facilities. Thus, the following approach was adopted as providing the most accurate estimate of potential need for facilities due to growth.

Methodology and Estimates

Information from the Fall Survey, pupil projections, and TSSF indicate that:

- Growth in student population (for those districts which had growth) averaged 77,000 per year from 1984-85 to 1987-88.
- Compared to net growth for the same time period, growth in gaining districts averaged 160% of the statewide net growth. When applied to expected annual net growth over the next five years (46,000), this ratio would produce annual expected growth in growing districts of about 74,000 students per year.
- Analysis of the TSSF database reveals that across the state, average square feet of instructional space per student (including portables) = 125 square feet.
- Analysis of the TSSF dataset also indicates that the cost of instructional space is approximately $50.00 per square foot, and that the cost of contents (desks, equipment) is approximately 15% of building costs. The result is an approximate cost of $58.00 per square foot for instructional space that is ready to be used by students and teachers.

Estimates:

| | |
|---|---|
| Annual student growth | 74,000 students |
| Square feet per student | x 125 |
| Square footage required to meet growth | 9.25 million square feet |
| Average cost for finished space | x $58.00 per square foot |
| Annual investment level for growth | $537 million |

This estimate should be considered in light of the following:

- The inclusion of portable space and the use of the $58.00 per square foot construction cost figure may tend to inflate the estimate, as the cost of portables is $21.00 per square foot, considerably less than the $58.00 per square foot cost used in this estimate.
- No allowances have been made for the impact of the maximum class size requirement in grades 3 and 4 scheduled to begin in the fall of 1988.

## OTHER COSTS ESTIMATES

### Maximum Class Size Requirement

A preliminary review of data on class size at grades 3 and 4 shows a need for more than 2,200 additional classrooms in order for all districts to come into compliance with the class size limit. The median class sizes for grades 3 and 4 are about 23 and 24 respectively, indicating that more than half of all classrooms for these grade levels are currently not in compliance with the requirement. Classrooms for these grade levels currently have more than 44,000 students above the 22 student limit.

Unlike the models of need for renovation and for construction to meet growth, based on time periods of five to fifteen years, models of investment to meet the maximum class size requirement assume a much more compressed time frame.

The law which mandates the class size requirement also contains a provision for a district to receive an exemption from the requirement for as many as three years while coming into compliance. Thus, the time frame for the construction of these classrooms can be no more than three years.

After examining several cost models the committee adopted the following model which estimates the cost for meeting the maximum class size requirement on a per student basis.[9]

Cost per Student

- Preliminary PEIMS data indicated that there are over 44,000 third and fourth grade students in classrooms with more than 22 students.
- Statewide, there is an average of 99 square feet of instructional space per elementary student.
- The average cost of instructional space is $58.00 per square foot

9A similar model, using the number of students who would need additional classroom space and square feet of space required per student was also evaluated. The results of the two models showed little difference in the overall cost of meeting the maximum class size requirement.

Estimates:

| | |
|---|---|
| Number of students in grades 3 & 4 in classrooms with more than 22 students | 44,000 students |
| Square feet of instructional space per student | x 99 square feet per student |
| Cost per square foot of instructional space | x $58.00 per square foot |
| Estimated level of investment for class size | $250 million |
| Time period for construction | ÷ 3 years |
| Annual level of investment | $84.2 million |

This model suggests that the cost of meeting facilities needs stemming from the maximum class size requirement will be approximately $250 million for the three year period from 1988-89 through 1990-91. It should be noted, however, that this is an estimate of the maximum cost of implementation. Some districts have already undertaken construction in order the meet their facilities needs, and many others may choose to use portable buildings at a considerably lower cost.

Asbestos Abatement[10]

The federal government has required that materials containing potentially hazardous asbestos be removed from public school buildings. While most districts have some sort of asbestos problem, the responsibility for evaluating the need for immediate removal or abatement will be left largely to local school districts. Much of the most dangerous material, that which will produce fibers that can be inhaled, has already been removed from the public schools, or will be removed over the next few years. The less dangerous material, such as asbestos in hard floors, can be removed over a longer period of time.

There is no information in Texas which describes the degree of the problem in each school district, and no estimate of the overall cost for abatement. It is clear that the process will take several years, and costs will vary greatly depending on the magnitude of the problem in a given district.

The federal government has required that all school districts submit a management plan for dealing with the problem in October, 1988, and has required that districts begin to take action no later than July, 1989. With the information available in these documents, it may be possible to estimate the cost to districts of removing asbestos from schools. At this time, however, there is no way to estimate the fiscal implications, and not mandate that the state provide any financial assistance to districts in their efforts

10This information is based on a presentation made by John Carlton of the Texas School Services Foundation to the Accountable Costs Advisory Committee at their meeting on July 12, 1988.

to remove the asbestos. As a result, these costs will be borne by the local school districts.

## CONCLUSIONS AND RECOMMENDATIONS

The Accountable Costs Advisory Committee finds that the quality of estimates of the need for investment in school facilities in Texas is significantly constrained by the lack of a detailed base of information. The inventory and evaluation function does not currently exist within the Texas Education Agency, and cannot be effectively accomplished within the resources currently available to the agency.

The inventory should clearly designate the square footage of educationally related space by purpose, as well as collect information which might be useful in establishing building standards. The evaluation of such space should consider structural quality and integrity, fire safety, and the educational adequacy of existing structures.

### The Role for the State In School Facilities

The state does have a role in the financing and construction of school facilities, and it is the determination of this Committee that the role should be sufficient to help districts which do not have the resources to construct adequate school facilities, while at the same time allowing all districts to maintain a significant degree of local control about what type of facilities to construct. While facilities represent a significant cost to school districts, no part of that cost is paid by the state.

In order for the state to become involved in the financing of capital outlay and school facilities, it must do several things. First, the state must establish minimum standards for facilities. This will entail a survey of existing facilities in the state, for which the Florida system would serve as an excellent example. Florida uses an established set of criteria for surveying and evaluating school facilities which could be adapted for use in Texas. Next, the state would be charged with enforcing these minimum standards. This could be achieved through the state's accreditation process.

Once information on the status of school facilities was available for all school districts in the state, the next step would be to establish criteria for providing a debt service subsidy to the poorest districts. There are a variety of ways in which this task could be undertaken. Subsidies could be awarded on the basis of district wealth and tax rate, on the level of existing debt, on the quality of existing facilities, or on the basis of some combination of these options.

In order to provide an immediate form of assistance that could lower interest rates and borrowing costs for almost all school districts it would be possible to take a different approach and create a Texas School Bond Guarantee Insurance program. The Legislature could do this by authorizing the Permanent School Fund (PSF) to create an independent insurance company through the investment of at least $100 million from the PSF. By using this fund as a means for insurance, it would produce a AAA rating for all Texas school bonds, and lower borrowing cost for virtually all districts in the state. It could also serve to reduce the state funds necessary for an interest subsidy if such a program were also authorized.

It is the recommendation of the Committee to the State Board of Education that specific legislative authority be sought to inventory and evaluate all structures used for educational purposes. It is also recommended that an adequate legislative appropriation be sought to fund the development of an inventory database. Continuing appropriations will be necessary for the maintenance and update of the database.

CHAPTER 5

# COSTS OF IMPLEMENTING THE LONG-RANGE PLAN

The Accountable Costs Advisory Committee was charged with identifying the costs of implementing provisions of the Long-Range Plan of the State Board of Education. This Plan has been described as a plan for meeting the long-range needs of Texas public education. The goals set forth in the Plan are to improve the overall quality of public education, and, as stated in the plan itself, "specific expectations are set... that will be accomplished... such as reducing the dropout rate, eliminating the achievement gap between disadvantaged children and other students, improving test scores, and retaining qualified teachers."

The charge of the Committee was to identify the costs of implementing the goals set forth in the plan. There are eight broad goal areas in the plan which contain several different objectives. The goals include: Student Performance, Curriculum, Teachers and Teaching, Organization and Management, Finance, Parent and Community Involvement, Innovation, and Communications. Efforts were focused on those objectives which appeared to have the most significant cost implications for the state.

Below is a listing of objectives, resources affected, and the cost estimates for selected items in the plan. The Objective/Action/Result statements are taken either directly from the text of the Long-Range Plan for Education, or paraphrased from the language contained in the Plan. The estimates provided are intended to give the reader a rough idea of the magnitude of the costs for the objectives listed in the plan.

## MAJOR COST IMPLICATIONS

### Special Weight for K-4

Objective/Action/Result:

A special allotment with an increased weight for grades K-4 will be sought.

Resources Affected:

Increased weights for funding of kindergarten through grade 4 will result in increased cost to the state. The estimated additional cost for the next biennium will be approximately $581 million.

Assumptions and Estimates:

For purposes of estimating the cost of this action, it was assumed that a weight of .2 would be sought. This was the weight recommended by the State Board of Education in its legislative request for the current biennium. It was further assumed that the basic allotment of $1350 would be used for estimation purposes, and that the average adjustment for the Price Differential Index and small schools adjustment would add another $234 (17.3%) to the basic allotment. With an adjusted base of $1584 per student, the K-4 weight would produce an additional allotment of $316.71 per ADA in the affected grades.

An estimate for the cost of the allotment for the next biennium was made by multiplying the per ADA allotment by the estimated number of students in each year of the next biennium. The number of students estimated to be enrolled in grades K-4 is 1,351,435 for the 1989-90 school year, and 1,387,164 for the 1990-91 school year. The allotment cost was estimated to be $428 million in 1989-90 and $439 million in 1990-91.

The state share of allotments within the Foundation School Program is approximately 67% of the total allotment amount. For the next biennium, the state share will total about $581 million, and the local share will be the remaining $286 million.

Because the extra allotment raises the overall size of the Foundation School Program, it is expected that an additional $33 million in state aid will be generated each year as Enrichment Equalization Aid under the current formula structure.

An alternative approach for estimating the cost of reduced class size in grades K - 4 is contained in Chapter 3, in the discussion of the minimum basic program. In modelling the minimum basic program, a class size of 20 was used to reflect the higher cost, especially in teacher salaries, of meeting this requirement.

### Reduce the Number of Waivers

Objective/Action/Result:

Reductions will be made in the number of waivers granted for the class-size limitation of 22 students and for the prekindergarten requirement.

Resources Affected:

A reduction in the number of waivers granted for the class size limitation of 22 students will be accomplished with more teachers, more sections of classes, and more classrooms. The previous Accountable Costs Advisory Committee (ACAC) report contained an estimated cost for facilities and one year teacher salaries of $360 million.

Assumptions and Estimates:

The previous Accountable Costs study developed cost estimates for implementing 22:1 based on a sample of approximately 450 school districts. The districts reported what they had budgeted to spend to meet the 22:1 class size limit. The following estimates were provided:

| | |
|---|---|
| KINDERGARTEN THROUGH 2nd GRADE: | |
| Additional Teachers: | $ 63.4 million |
| Construction: | $ 66.0 million |
| 3rd AND 4th GRADE: | |
| Additional Teachers: | $ 78.7 million |
| Construction and other: | $ 152.4 million |

The estimates for construction are based on capital outlay projections made by the districts. If these outlays are financed through the issuance of debt, a more appropriate cost might be the annual cost of interest and principal. With 20 year bonds, the interest cost would be approximately equal to the total principal, and the annual cost for the above outlays would be approximately $22 million each year.

Since the 22:1 limitation was instituted, the number of waivers for facilities, teachers, and both teachers and facilities have decreased.

| | Fall 1985-86 | Fall 1986-87 | Fall 1987-88* |
|---|---|---|---|
| Facilities | 225 | 143 | 14 |
| Teachers | 46 | 38 | 3 |
| Both | 54 | 48 | 3 |

*The number of waivers for the Spring 1987-88 has increased to a total of 127; 78 for facilities, 26 for teachers and 23 for both. This increase, however, still shows a decline in the total number of waivers granted to districts.

The number of waivers is not an appropriate means of estimating the need for facilities that need to be bought or constructed, or the number of teachers that need to be hired in or to bring school districts into compliance with state law. This is due to the fact that waivers are granted to an entire school district and are not dependent on the number of rooms or campuses out of compliance. That is, if a large school district has a number of schools out of compliance, its waiver would be no different from one issued to a small school with only one room out of compliance. Because of this, the cost for buying and constructing new facilities and hiring new teachers due to the 22:1 ratio cannot be estimated using waiver data

Another way to measure the costs of buying or constructing new facilities involves looking at Capital Projects Fund Acquisition and construction expenditures, loan amounts, and bond amounts from audit reports (listed below). Over time acquisition and construction expenditures from the Capital Projects Fund increased in 1985-86 over 1984-85 and decreased by $12 million during the 1986-87 academic year, whereas loan and bond amounts increased in 1985-86 over the previous year and increased again in the 1986-87 academic year.

| | 1984-85 | 1985-86 | 1986-87 |
|---|---|---|---|
| Capital Projects Fund Acquisition and Const. (expenditures in millions) | $769 | $945 | $932 |
| Bonds (% increase over previous year) | 7% | 13% | 1% |

The figures for waivers and bonds demonstrate that as the number of waivers decreased, districts increased their indebtedness. In 1984-85 bonds outstanding totalled over $5.6 billion. In 1985-86 bonds outstanding totalled over $6.3 billion, and by 1986-87 this amount had grown to over $6.4 billion. This represents an increase of 13 percent from 1984-85 to 1986-87. Loans show a similar pattern, however for most districts, loans do not represent a significant source of financing.

These costs, however, do not directly reflect actual costs incurred for facilities due to the 22:1 limitation because they are not separated from costs due to "normal" expenditures such as population growth and the renovation of aging facilities. However, as demonstrated above, the number of waivers have decreased and it appears that districts have accomplished this by increasing their indebtedness through the increased use of loans and bonds.

Although the number of waivers has decreased recently, the extension of the maximum class size requirement to grades 3 and 4 in the 1988-89 school year may precipitate another surge in waivers and in new construction. A more detailed discussion of the cost of meeting the facilities needs of the maximum class size requirement in grades 3 and 4 is contained in Chapter 4 of this report.

Reduce the Dropout Rate

Objective/Action/Result:

The statewide dropout rate will be reduced by 11 percentage points to 24 percent by 1988-89, and to five percent by 1997-98.

Resources Affected:

The most easily quantifiable impact of the reduction in the dropout rate will be seen in higher state aid requirements that result from higher student attendance rates. Additional state and local resources for special programs, including compensatory and bilingual programs, as well as local resources will also be affected.

Assumptions and Estimates:

The following assumptions were made concerning the programmatic costs associated with a reduced dropout rate.

The reduction of the rate from 33 percent to 24 percent will generate a need for considerable additional state aid for the 1988-89 academic year. The additional aid, in the form of formula-driven amounts can be calculated by multiplying the number of additional students (those who will be retained in the system) in average daily attendance by the basic allotment of $1350 per ADA, and adjusting the amount for the Price Differential Index, as well as other adjustments to the basic allotment.

Calculations are based on an additional 20,560 students eligible for funding in the 1988-89 school year. Over a five year period an additional 50,000 students who would have left the public school system under present conditions will have been retained under the goals of the Plan.

Many of the students who will remain in school as a result of dropout reduction will have a need for one or more special programs. While the state will fund some of the costs of special programs, there will also be an added cost to local school districts.

For the purposes of calculating state aid, it is estimated that fifty percent of the students retained will be eligible for free and reduced lunch. Compensatory Education funding will be affected for educating these students. The weight for Compensatory Education was .2 for all years included in the cost estimate.

Likewise, it is estimated that fifty percent of the high school students retained will spend one-third of their class time (2 courses) enrolled in Vocational Education courses which are weighted at 1.45 for all years and all courses.

Bilingual Education funding was calculated by estimating that of those Hispanic students retained, 20 percent would be enrolled in Bilingual courses, which are weighted at .1.

The number of at-risk students enrolled in special education programs is unknown, but each retained student enrolled in a special education program will increase aid to schools.

Based on the assumptions listed above, it is estimated that a successful reduction in the dropout rate to 24 percent in 1988-89 will require an additional $32.5 million in state aid for the regular program, and $7.9 million for special programs. By the end of the next five years, annual state aid would increase by almost $100 million in order to provide for the needs of students identified as at-risk. This $100 million includes the reduction in the dropout rate from 33 percent to 24 percent plus five years of progressively reducing the dropout rate toward the five percent goal for 1997-98.

Another major cost will include the programs designed for intervention. The costs for intervention would include, among other things, guidance counselors and At-Risk Coordinators at the district level. However, these costs cannot be accurately enumerated because they would depend on the size of the district and the type of prevention program used by the district.

Several school districts were contacted in an effort to identify what is being spent on programs designed to assist the at-risk to student and to prevent him from dropping out of school. While it is clear that districts are working to keep students in school, the variety in approaches and responses makes it impossible to evaluate and report on them.

## Teacher Compensation

### Objective/Action/Result:

Teacher salaries will have to be raised to levels competitive with those earned by professionals in the private sector and with those earned by teachers in other states, and compensation for differentiated responsibilities will have been implemented.

### Resources Affected:

Teacher compensation in Texas is below the national average. Estimates of the cost of improving teacher compensation vary, depending on which target level the state decides to pursue. The state may decide to make teacher salaries comparable to other professionals, to the most populous states, or to the nation. All three cost estimates are provided below. The burden for improving teacher salaries will fall primarily on the local school districts, unless higher allotments are approved for the Foundation School Program.

Analysis:

When teacher salaries were compared to other professional salaries, the results were mixed. Teacher salaries were compared to professionals in Texas with similar license and degree requirements. An attempt was made to use beginning salaries whenever possible to make experience related comparable. The other professional salaries were found in their respective journals and were generally for the 1986-87 school year, the most recent year available. Salaries for other professionals were converted to a 10 month basis to allow comparison to Texas teacher salaries.

Beginning salaries were obtained for three professions: engineers, nurses and architects. The comparison to average beginning teacher salaries appears below:

| | |
|---|---|
| Engineers | $22,831 |
| Registered Nurses | $17,667 |
| Architects | $16,833 |
| Texas Beginning Teacher | $18,243 |

Average salaries were obtained for two other professions: pharmacists and systems analysts. The comparison to average teacher salaries appears below:

| | |
|---|---|
| Pharmacists | $27,500 |
| Systems Analysts | $25,912 |
| Average Texas Teacher | $24,890 |

To raise Texas teacher salaries to the level of pharmacists would require $486 million. To raise them to the level of systems analysts would cost $191 million.

The estimated cost for raising Texas teacher salaries to the national weighted average was $340.8 million. Again, this weighted average was based on the number of teachers per state. The weighted national average in 1986-87 was approximately $26,700, while Texas' average was $24,890.

The estimated cost for raising Texas teacher salaries to the level of the most populous states (New York, California, Florida and Illinois) was approximately $894.5 million. This cost was derived by using a weighted average, based on the number of teachers per state. The weighted average of the four states in 1986-87 was $29,690. Texas' 1986-87 average salary was $24,890.

The figures above do not include other benefits, and are not adjusted for the experience of teachers. In an effort to compare Texas teacher salaries to other state's salaries weighted for experience, data containing average years of experience for teachers in 37 states was obtained from the American Federation of Teachers (AFT) and directly contacting states. The data from the AFT is from December 1987 and is assumed to be from the 1986-87 school year. The average weighted years of experience for the 37 states included in the data was approximately 14 years. AFT reported Texas' average years of experience as 10.6.

Research conducted for the 1986 Price Differential Index Advisory Committee indicates that teachers in Texas with 14 years of experience would be expected to earn approximately $1,500 per year more than teachers with 10.6 years. It could therefore be assumed that if the average experience of Texas teachers were 14 years, the average salary would be $26,390, or about $300 lower than the weighted national average.

The weighted average experience of teachers in New York, California, Florida, and Illinois is 15 years. When adjusted to this level of experience, the Texas teacher salary average would be expected to be $26,890.

Technology

Objective/Action/Result:

The state will assist in implementing strategies based on research on effective teaching; meeting the special needs of linguistic and ethnic minorities; and implementing effective and efficient organizational methods.

Working conditions of teachers will be improved by instructional management systems, increased use of appropriate technologies, and other arrangements.

The state will investigate, provide assistance on, and encourage implementation of distance-learning technologies in order to provide a well-balanced curriculum to all students. To do this, mechanisms for delivery of services to smaller units through the use of alternative technologies should be implemented, and proposals to fund incentives for sharing resources and facilities and other forms of cooperation should be investigated.

Demonstration programs will be developed in areas consistent with the Long-Range Plan. Technical assistance provided by the state for technology-based and other pilot programs which will improve instruction and administration will be implemented and evaluated and the results will be disseminated statewide.

Resources Affected:

Investment in new technologies and in training will represent the most significant costs associated with this portion of the Long-Range Plan. Costs associated with the acquisition of technology for teachers will include training costs, while the costs associated with acquisition for students will be limited to hardware and software costs.

Costs for providing assistance on and implementing distance-learning technologies could include a Texas only satellite system or expanding the use of existing deliverers through the TI-IN Network system, other satellite programs, and public broadcasting. Video cassette recorders, video tapes, videodisc players, videodiscs, and educational cable (television) programming also may provide better access to curriculum for all students.

Assumptions and Estimates:

The following assumptions and estimates for technology are partial listings of the goals contained within the Long-Range Plan for Technology. The hardware and software components were gathered through cooperation with the Long-Range Plan for Technology staff. The following are partial listings and do not include estimates for distance-learning technologies. Those costs depend largely on which option or options the state decides to pursue in cooperation with districts.

Workstation expectations are broken down into various sections: one for teachers and administrators, one for students, and the third for distance-learning. These estimates assume that absolutely none of the districts have hardware nor software because of the lack of knowledge as to what already exists within districts.

The first goal within the Technology Plan is for every campus will have a faculty productivity workstation for lesson plans, gradebooks, graphics, and word processing and teacher inservice by 1991. There are approximately 6,000 campuses within Texas. Each campus computer will cost approximately $2500 and will be provided $400 worth of software. The workstation consists of one laser printer ($4,000), networked Compact Disc Read Only Memory (CD-ROM at $1,100), videodisc machine ($1,200), and projection devices ($1,000). Teacher inservice is also included in the cost of this goal. It is conservatively estimated that 20 percent of all teachers will receive inservice training and will be paid for eight hours of training. The total cost of this first goal will be approximately $66.3 million. This estimate assumes that the delivery of teacher training will be included in the contract for the hardware.

The second goal pertaining to teachers includes a 1:20 workstation to classroom ratio within districts for instructional and productivity purposes. The workstations and all software costs are assumed to be constant since it is not known whether the costs will actually increase due to inflationary pressures on the economy as a whole or will decrease due to the bulk purchase of the hardware and software.

The number of stationary teacher workstations needed by the 1993-94 school year was estimated to be approximately 4,200, based on a projection of 210,000 teachers. The cost of this second goal is estimated to be approximately $50 million dollars.

The third goal of the Technology Plan, a 1:10 workstation to classroom ratio, to be completed by the 1995-96 school year included approximately 12,000 additional workstations and software. This number was based on estimates similar to those above. The cost for this goal was estimated to be $120.6 million dollars.

The total cost for the next seven academic years was estimated to be approximately $237 million for teacher-related technology.

The second section of the Technology Plan pertained to students. This section did not include distance learning. The goals for students had three different timelines. The first was set for 1991, the second for 1993 and the third for 1995. The hardware for students was not as expensive as that for teachers. It was assumed that software would be 15 percent of the costs expended for hardware. Hardware costs were assumed to be $1,900.

The first goal within the student section was set for 1991. By this time it is assumed that a 1:3 ratio of computer workstations to students would be in place for all students receiving an advanced diploma. It was assumed that 10 percent of the projected high school student population for the 1991-92 school year would receive an advanced diploma. The projected number of high school students for 1991-92 is 842,302. The total cost of the workstations is estimated to be $53.5 million and the cost of the software was estimated to be approximately $8 million for a total of $61.5 million.

The second goal was set for 1993. By this time, it is expected that there will be a computer to student ratio of 1:20 for all students. The total number of student workstations will be 138,174. The total cost of this goal is estimated to be $302 million.

The third goal of the Long-Range Plan for Technology to be met by 1995, was for a computer to student ratio of 1:15. By this time, schools will need a total of 66,905 student workstations. The total cost of this goal is estimated to be $146.2 million.

The cost for student workstations over the next seven academic years will be approximately $509.4 million.

The total cost of both the teacher and student workstations over the next seven academic years will be approximately $746 million. This figure does not take into account the hardware and software that districts have already purchased. Therefore, actual costs for technology may be lower.

## OTHER COST IMPLICATIONS

Estimating the costs of each objective within the plan was beyond the scope of this study. Cost estimates for several goals and objectives were not created due to limitation on the available data and nebulous cost implications.

Listed below are eight objectives from various goals and the anticipated resources affected for items in the plan. Cost estimates were not provided for these objectives. However, it is expected that there will be significant costs associated with these objectives.

### Increase Academic Performance

Objective/Action/Result:

It is expected that all students will meet increasingly challenging expectations for academic performance in the public schools, and that student performance will be measured and results reported. Additional measures for judging performance will be established and the rigor of TEAMS tests will be increased at least every five years.

Resources Affected:

Measurement of academic performance requires the application of performance criteria to student performance on the SAT, student test scores on TEAMS, and other achievement measures for individual students, groups of students, and schools. These measures generally exist at the current time.

Additional measures may include other tests and student follow-up procedures to determine success at institutions of higher education and in employment fields. Test development for a more rigorous TEAMS will be required.

Higher participation in rigorous courses will require more diverse course offerings by some districts. This diversity will require a teaching staff which is appropriately trained and certified or other alternative delivery strategies.

### Literacy and Other Training for Undereducated Adults

Objective/Action/Result:

Literacy and other training should be provided for undereducated adults and for those who leave school early. This should include the development of a long-range plan for adult and community education as a part of the plan that will have been adopted by the State Board of Education by the end of the 1987-88 school year.

Resources Affected:

Solutions, such as alternative schools, public-private cooperative programs, demonstration sites, and literacy programs for undereducated adults and dropouts will have administrative, teacher, and program costs. Other costs may include the development of computer systems and their maintenance.

## Improve Access to Gifted and Talented Programs

Objective/Action/Result:

The state will provide technical assistance to schools in identifying and serving all students who demonstrate above average achievement or potential in creative and productive thinking. This includes helping students who are substantially above grade level by removing state funding limitations on serving identified gifted and talented students. As a result of relaxed funding restrictions, all students who meet the criteria in rule and statute for giftedness and talent will be provided programs that meet their needs and challenge their special abilities. The state will also identify and implement ways to deliver more advanced-level studies to students in small schools.

Resources Affected:

Currently, the weight for gifted and talented programs is an add-on of .043, and funding is limited to 5 percent of the district's total ADA. With the removal of limitations on the number of eligible students, and an increase in the weight to .12 in the 1990-91 school year, state funding to school districts will increase substantially.

All districts will be required to provide services to gifted/talented students, resulting in additional state and local costs.

Delivery of advanced-level studies to small districts will require more resources, either in the form of traditional arrangements (teachers and textbooks) or non-traditional (computers, satellite technologies).

## Assist the Slower Learner

Objective/Action/Result:

Remedial and compensatory programs and required tutorials should be improved.

Students who learn in non-traditional ways and who progress through the curriculum at a non-traditional rate, should be offered alternatives such as flexible advancement and adaptive education opportunities.

Resources Affected:

Improving remedial and compensatory programs and tutorials will include program research, development, teacher inservice and implementation costs.

Programs for students who learn in non-traditional ways need to be developed, administered, and implemented. Costs for these may include alternative schools, teachers, computer hardware, software and the maintenance of these systems.

## Distance-Learning

Objective/Action/Result:

The state will investigate, provide assistance on, and encourage implementation of distance-learning technologies in order to provide a well-balanced curriculum to all students. Mechanisms for delivery of services to smaller units through the use of alternative technologies should be implemented.

Resources Affected:

Costs for providing assistance on and implementing distance-learning technologies could include a Texas only satellite system or expanding the use of existing satellites, such as the TI-IN Network system. Video cassette recorders, video tapes, videodisc players, videodiscs, and educational cable (television) programming also may provide better access to curriculum for all students. Teacher inservice will be needed to effectively coordinate distance-learning with local courses.

## Organization and Management: Administrators

Objective/Action/Result:

To ensure that all certified public school administrators demonstrate competency in instructional leadership and management, a comprehensive management training program will be implemented to promote increased levels of administrator performance in the areas of general management, instructional leadership, appraisal, paperwork reduction and related services. An administrators' appraisal and training system will be designed and implemented.

Resources Affected:

Costs associated with administrator training will include course development, class attendance, and course materials. Inservice training will be needed to keep the administrators up-to-date on the best procedures to efficiently manage the schools as well as on information systems that allow for the reduction of paperwork. The administrator appraisal system is currently under development.

Organization and Management: School Board Members

Objective/Action/Result:

State standards of knowledge and skills needed by school board members will be promulgated, and training, based on these standards, will be provided to school board members. School board members should be assisted in participating in required continuing education. School board members will be provided the knowledge and skills they need to be productive, efficient and accountable in organizing and managing the schools.

Resources Affected:

There are costs associated with the training of school board members. The costs for continuing education of school board members will include course materials, time and expenses incurred to attend the training.

Programs for Parenting Skills

Objective/Action/Result:

Educational programs that strengthen parenting skills and help parents to provide educational assistance to their children will be developed.

The state will provide technical assistance on improving parenting skills through sharing information on model programs and establishing a parental component to the pre-kindergarten program, kindergartens, and elementary schools. Training in parenting and academic skills should be offered to high school students and parents, especially to those who are undereducated.

Resources Affected:

Educational programs that strengthen parenting skills may necessitate the evaluation of existing programs as well as program development. The development of a parenting program will need staff and teachers, texts and other materials. A target audience will have to be decided, and ways to reach that audience should be developed.

Gathering of information as well as the dissemination of information on parenting programs will require staff or others to research and evaluate programs. The cost of the delivery of parent education programs will depend on the grade level with which the program will start.

APPENDICES

## APPENDIX A

Class Size Data For Selected Percentiles of Students

Class Sizes are Shown by Subject Area
and by Each of Five District Size Groups

A.1 Class Sizes for the Required Elementary and Secondary Curriculum

A.2 Class Sizes in Junior High and High School Elective Subject Areas

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| PRE-KINDERGARTEN | | | | | | |
| UNDER 2,555 ADA | 18 | 19 | 21 | 22 | 23 | 25 |
| 2,555-8,000 ADA | 19 | 20 | 21 | 22 | 22 | 23 |
| 8,000-19,200 ADA | 20 | 22 | 22 | 24 | 25 | 27 |
| 19,200-40,000 ADA | 21 | 22 | 22 | 23 | 23 | 26 |
| OVER 40,000 ADA | 21 | 22 | 22 | 22 | 23 | 26 |
| KINDERGARTEN | | | | | | |
| UNDER 2,555 ADA | 20 | 21 | 21 | 22 | 23 | 24 |
| 2,556-8,000 ADA | 21 | 21 | 22 | 22 | 22 | 23 |
| 8,000-19,200 ADA | 20 | 21 | 22 | 23 | 24 | 29 |
| 19,200-40,000 ADA | 20 | 21 | 22 | 23 | 24 | 25 |
| OVER 40,000 ADA | 21 | 22 | 22 | 23 | 23 | 28 |
| GRADE 1 | | | | | | |
| UNDER 2,555 ADA | 20 | 21 | 21 | 22 | 22 | 23 |
| 2,555-8,000 ADA | 21 | 21 | 22 | 22 | 22 | 23 |
| 8,000-19,200 ADA | 20 | 21 | 22 | 22 | 23 | 24 |
| 19,200-40,000 ADA | 20 | 21 | 22 | 22 | 23 | 24 |
| OVER 40,000 ADA | 20 | 21 | 22 | 23 | 23 | 25 |
| GRADE 2 | | | | | | |
| UNDER 2,555 ADA | 20 | 21 | 21 | 22 | 22 | 24 |
| 2,555-8,000 ADA | 20 | 21 | 22 | 22 | 22 | 23 |
| 8,000-19,200 ADA | 20 | 21 | 22 | 22 | 23 | 24 |
| 19,200-40,000 ADA | 20 | 21 | 22 | 22 | 23 | 24 |
| OVER 40,000 ADA | 20 | 21 | 22 | 22 | 23 | 24 |
| GRADE 3 | | | | | | |
| UNDER 2,555 ADA | 22 | 23 | 24 | 25 | 26 | 27 |
| 2,555-8,000 ADA | 23 | 24 | 25 | 28 | 27 | 28 |
| 8,000-19,200 ADA | 23 | 24 | 25 | 26 | 27 | 29 |
| 19,200-40,000 ADA | 23 | 25 | 28 | 28 | 28 | 30 |
| OVER 40,000 ADA | 24 | 25 | 26 | 27 | 28 | 29 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| GRADE 4 | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 25 | 28 | 27 | 29 |
| 2,555-8,000 ADA | 24 | 25 | 26 | 27 | 28 | 29 |
| 8,000-19,200 ADA | 24 | 25 | 28 | 28 | 28 | 30 |
| 19,200-40,000 ADA | 25 | 26 | 27 | 29 | 29 | 30 |
| OVER 40,000 ADA | 25 | 26 | 27 | 29 | 29 | 30 |
| GRADE 5 | | | | | | |
| UNDER 2,555 ADA | 23 | 24 | 25 | 27 | 28 | 29 |
| 2,555-8,000 ADA | 25 | 26 | 27 | 28 | 29 | 30 |
| 8,000-19,200 ADA | 24 | 26 | 27 | 28 | 29 | 30 |
| 19,200-40,000 ADA | 24 | 26 | 27 | [illegible] | [illegible] | [illegible] |
| OVER 40,000 ADA | 25 | 27 | [illegible] | [illegible] | 30 | 30 |
| GRADE 6 | | | | | | |
| UNDER 2,555 ADA | 22 | 23 | 25 | 26 | 28 | 30 |
| 2,555-8,000 ADA | 24 | 25 | 28 | 27 | 28 | 29 |
| 8,000-19,200 ADA | 24 | 25 | 26 | 28 | 29 | 30 |
| 19,200-40,000 ADA | 24 | 26 | 27 | 29 | 30 | 31 |
| OVER 40,000 ADA | 25 | 27 | 28 | 29 | 31 | 32 |
| INTRODUCTORY BIOLOGY (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 18 | 20 | 23 | 24 | 26 | 28 |
| 2,555-8,000 ADA | 24 | 26 | 27 | 28 | 30 | 30 |
| 8,000-19,200 ADA | 24 | 26 | 28 | 29 | 30 | 32 |
| 19,200-40,000 ADA | 25 | 26 | 28 | 29 | 30 | 31 |
| OVER 40,000 ADA | 25 | 27 | 28 | 29 | 30 | 31 |
| BIOLOGY I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 23 | 24 | 26 | 27 | 29 |
| 2,555-8,000 ADA | 25 | 26 | 27 | 28 | 29 | 30 |
| 8,000-19,200 ADA | 26 | 28 | 29 | 30 | 30 | 31 |
| 19,200-40,000 ADA | 26 | 28 | 29 | 30 | 31 | 31 |
| OVER 40,000 ADA | 28 | 30 | 30 | 31 | 32 | 33 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| LIFE SCIENCE (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 25 | 27 | 29 | 30 |
| 2,555-8,000 ADA | 25 | 28 | 27 | 28 | 29 | 30 |
| 8,000-19,200 ADA | 25 | 27 | 28 | 29 | 30 | 31 |
| 19,200-40,000 ADA | 25 | 26 | 28 | 29 | 30 | 31 |
| OVER 40,000 ADA | 27 | 28 | 2[illegible] | 30 | 31 | 32 |
| CHEMISTRY I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 17 | 19 | 20 | 23 | 24 | 26 |
| 2,555-8,000 ADA | 22 | 24 | 25 | 28 | 27 | 29 |
| 8,000-19,200 ADA | 24 | 26 | 27 | 28 | 29 | 31 |
| 19,200-40,000 ADA | 24 | 25 | 27 | 28 | 29 | 30 |
| OVER 40,000 ADA | 26 | 28 | 29 | 30 | 30 | 31 |
| PHYSICS I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 13 | 18 | 18 | 21 | 24 | 27 |
| 2,555-8,000 ADA | 19 | 21 | 23 | 25 | 27 | 31 |
| 8,000-19,200 ADA | 23 | 26 | 25 | 28 | 30 | 31 |
| 19,200-40,000 ADA | 23 | 25 | 27 | 27 | 28 | 29 |
| OVER 40,000 ADA | 25 | 27 | 28 | 29 | 29 | 30 |
| EARTH SCIENCE (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 25 | 27 | 28 | 30 |
| 2,555-8,000 ADA | 24 | 25 | 25 | 28 | 28 | 30 |
| 8,000-19,200 ADA | 25 | 28 | 27 | 29 | 29 | 31 |
| 19,200-40,000 ADA | 24 | 26 | 27 | 29 | 30 | 31 |
| OVER 40,000 ADA | 27 | 28 | 29 | 30 | 31 | 32 |
| PHYSICAL SCIENCE (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 25 | 27 | 28 | 30 |
| 2,555-8,000 ADA | 25 | 28 | 27 | 29 | 30 | 31 |
| 8,000-19,200 ADA | 26 | 27 | 28 | 29 | 30 | 31 |
| 19,200-40,000 ADA | 28 | 28 | 28 | 30 | 31 | 32 |
| OVER 40,000 ADA | 28 | 29 | 30 | 31 | 32 | 33 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| FUNDAMENTALS OF MATHEMATICS (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 17 | 20 | 22 | 24 | 25 | 27 |
| 2,555-8,000 ADA | 21 | 22 | 25 | 28 | 28 | 30 |
| 8,000-19,200 ADA | 23 | 25 | 27 | 29 | 30 | 31 |
| 19,200-40,000 ADA | 22 | 24 | 25 | 28 | 28 | |
| OVER 40,000 ADA | 25 | 27 | 29 | 30 | 31 | |
| CONSUMER MATHEMATICS (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 18 | 21 | 23 | 25 | 28 | 28 |
| 2,555-8,000 ADA | 23 | 25 | 27 | 28 | 29 | 31 |
| 8,000-19,200 ADA | 24 | 27 | 29 | 30 | 32 | 33 |
| 19,200-40,000 ADA | 26 | 27 | 28 | 30 | 30 | 31 |
| OVER 40,000 ADA | 27 | [illegible] | [illegible] | 31 | 32 | 33 |
| PRE-ALGEBRA (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 21 | 24 | 25 | 27 | 29 | 30 |
| 2,555-8,000 ADA | 25 | 27 | 28 | 30 | 31 | 33 |
| 8,000-19,200 ADA | 26 | 28 | 29 | 30 | 31 | 33 |
| 19,200-40,000 ADA | 25 | 28 | 29 | 30 | 31 | 32 |
| OVER 40,000 ADA | 28 | 29 | 30 | 32 | 32 | 34 |
| INFORMAL GEOMETRY (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 17 | 19 | 21 | 24 | 25 | 27 |
| 2,555-8,000 ADA | 24 | 26 | 28 | 30 | 30 | 32 |
| 8,000-19,200 ADA | 26 | 27 | 28 | 30 | 32 | 34 |
| 19,200-40,000 ADA | 24 | 27 | 27 | 28 | 29 | 30 |
| OVER 40,000 ADA | 28 | 30 | 31 | 32 | 32 | 33 |
| ALGEBRA I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 25 | 27 | 28 | 30 |
| 2,555-8,000 ADA | 26 | 27 | 28 | 30 | 31 | 32 |
| 8,000-19,200 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| 19,200-40,000 ADA | 27 | 28 | 29 | 31 | 31 | 32 |
| OVER 40,000 ADA | 28 | 30 | 31 | 32 | 33 | 33 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| ALGEBRA II (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 22 | 24 | 27 | 28 | 30 |
| 2,555-8,000 ADA | 25 | 26 | 27 | 29 | 30 | 31 |
| 8,000-19,200 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| 19,200-40,000 ADA | 27 | 28 | 29 | 30 | 31 | 32 |
| OVER 40,000 ADA | 28 | 30 | 31 | 32 | 33 | 34 |
| GEOMETRY (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 23 | 24 | 25 | 27 | 29 |
| 2,555-8,000 ADA | 25 | 27 | 28 | 29 | 30 | 31 |
| 8,000-19,200 ADA | 26 | 28 | 29 | 31 | 32 | 33 |
| 19,200-40,000 ADA | 25 | 28 | 29 | 30 | 30 | 32 |
| OVER 40,000 ADA | 28 | 30 | 31 | 32 | 33 | 34 |
| TRIGONOMETRY (1/2 UNIT) | | | | | | |
| UNDER 2,555 ADA | 14 | 16 | 18 | 20 | 22 | 24 |
| 2,555-8,000 ADA | 22 | 25 | 26 | 28 | 29 | 31 |
| 8,000-19,200 ADA | 26 | 28 | 29 | 30 | 31 | 31 |
| 19,200-40,000 ADA | 24 | 27 | 29 | 30 | 31 | 34 |
| OVER 40,000 ADA | 25 | 27 | 29 | 31 | 33 | 34 |
| ELEMENTARY ANALYSIS (1/2 UNIT) | | | | | | |
| UNDER 2,555 ADA | 15 | 16 | 22 | 22 | 22 | 22 |
| 2,555-8,000 ADA | 19 | 22 | 22 | 22 | 22 | 25 |
| 8,000-19,200 ADA | 22 | 22 | 27 | 27 | 27 | 27 |
| 19,200-40,000 ADA | 16 | 16 | 21 | 21 | 21 | 21 |
| OVER 40,000 ADA | 12 | 12 | 12 | 12 | 12 | 12 |
| ANALYTIC GEOMETRY (1/2 UNIT) | | | | | | |
| UNDER 2,555 ADA | 18 | 18 | 18 | 23 | 23 | 23 |
| 2,555-8,000 ADA | 17 | 17 | 19 | 19 | 19 | 19 |
| 8,000-19,200 ADA | 19 | 25 | 26 | 26 | 26 | 26 |
| OVER 40,000 ADA | 25 | 25 | 25 | 25 | 25 | 25 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| PRE-CALCULUS (1/2-1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 14 | 17 | 21 | 25 | 28 | 27 |
| 2,555-8,000 ADA | 22 | 24 | 26 | 27 | 29 | 32 |
| 8,000-19,200 ADA | 25 | 27 | 28 | 29 | 31 | 32 |
| 19,200-40,000 ADA | 24 | 25 | 27 | 28 | 29 | 31 |
| OVER 40,000 ADA | 26 | 30 | 31 | 33 | 34 | 35 |
| MATHEMATICS OF CONSUMER ECONOMICS (1/2-1 | | | | | | |
| UNDER 2,555 ADA | 20 | 23 | 25 | 28 | 28 | 30 |
| 2,555-8,000 ADA | 28 | 28 | 29 | 30 | 31 | 33 |
| 8,000-19,200 ADA | 25 | 27 | 29 | 31 | 32 | 33 |
| 19,200-40,000 ADA | 27 | 28 | 30 | 31 | 32 | 32 |
| OVER 40,000 ADA | 27 | 31 | 32 | 34 | 34 | 35 |
| MATHEMATICS, GRADE 7 (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 21 | 23 | 25 | 27 | 28 | 30 |
| 2,555-8,000 ADA | 24 | 25 | 26 | 28 | 28 | 30 |
| 8,000-19,200 ADA | 25 | 27 | 28 | 29 | 30 | 32 |
| 19,200-40,000 ADA | 24 | 25 | 26 | 28 | 29 | 31 |
| OVER 40,000 ADA | 26 | 28 | 29 | 30 | 31 | 32 |
| MATHEMATICS, GRADE 8 (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 21 | 23 | 24 | 26 | 28 | 29 |
| 2,555-8,000 ADA | 23 | 25 | 26 | 27 | 28 | 30 |
| 8,000-19,200 ADA | 25 | 26 | 27 | 29 | 30 | 31 |
| 19,200-40,000 ADA | 23 | 25 | 27 | 28 | 29 | 31 |
| OVER 40,000 ADA | 27 | 28 | 29 | 31 | 31 | 33 |
| ENGLISH I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 21 | 23 | 25 | 26 | 28 | 29 |
| 2,555-8,000 ADA | 25 | 26 | 27 | 29 | 30 | 31 |
| 8,000-19,200 ADA | 26 | 28 | 29 | 30 | 31 | 32 |
| 19,200-40,000 ADA | 26 | 28 | 29 | 30 | 31 | 32 |
| OVER 40,000 ADA | 27 | 29 | 30 | 31 | 32 | 33 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| ENGLISH II (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 23 | 24 | 26 | 27 | 29 |
| 2,555-8,000 ADA | 25 | 26 | 27 | 28 | 30 | 31 |
| 8,000-18,200 ADA | 26 | 28 | 29 | 30 | 31 | 32 |
| 18,200-40,000 ADA | 27 | 28 | 28 | 31 | 31 | 32 |
| OVER 40,000 ADA | 28 | 28 | 30 | 31 | 32 | 33 |
| ENGLISH III (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 23 | 24 | 28 | 28 | 28 |
| 2,555-8,000 ADA | 25 | 28 | 28 | 28 | 30 | 31 |
| 8,000-18,200 ADA | 28 | 28 | 28 | 30 | 31 | 33 |
| 18,200-40,000 ADA | 27 | 28 | 30 | 31 | 32 | 33 |
| OVER 40,000 ADA | 28 | 30 | 30 | 31 | 32 | 33 |
| ENGLISH IV (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 18 | 22 | 24 | 26 | 27 | 30 |
| 2,555-8,000 ADA | 24 | 28 | 28 | 28 | 31 | 32 |
| 8,000-18,200 ADA | 27 | 28 | 30 | 31 | 32 | 33 |
| 18,200-40,000 ADA | 28 | 28 | 30 | 31 | 32 | 34 |
| OVER 40,000 ADA | 29 | 30 | 31 | 32 | 33 | 34 |
| ENGLISH IV ACADEMIC (COMPOSITION) (1/2 U | | | | | | |
| UNDER 2,555 ADA | 18 | 22 | 24 | 26 | 28 | 29 |
| 2,555-8,000 ADA | 23 | 25 | 27 | 28 | 28 | 30 |
| 8,000-18,200 ADA | 28 | 27 | 28 | 29 | 30 | 32 |
| 18,200-40,000 ADA | 26 | 27 | 28 | 31 | 32 | 34 |
| OVER 40,000 ADA | 27 | 30 | 31 | 31 | 33 | 34 |
| ENGLISH IV ACADEMIC (BRITISH LITERATURE) | | | | | | |
| UNDER 2,555 ADA | 18 | 22 | 24 | 25 | 26 | 27 |
| 2,555-8,000 ADA | 25 | 27 | 28 | 28 | 32 | 37 |
| 8,000-18,200 ADA | 28 | 28 | 28 | 30 | 30 | 31 |
| 18,200-40,000 ADA | 25 | 26 | 27 | 28 | 29 | 30 |
| OVER 40,000 ADA | 25 | 27 | 27 | 27 | 27 | 27 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| CORRELATED LANGUAGE ARTS I (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 17 | 20 | 22 | 24 | 25 | 28 |
| 2,555-8,000 ADA | 18 | 22 | 24 | 25 | 26 | 26 |
| 8,000-18,200 ADA | 22 | 25 | 26 | 27 | 29 | 31 |
| 18,200-40,000 ADA | 25 | 28 | 27 | 29 | 30 | 31 |
| OVER 40,000 ADA | 24 | 26 | 27 | 30 | 30 | 30 |
| CORRELATED LANGUAGE ARTS II (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 16 | 18 | 20 | 21 | 22 | 24 |
| 2,555-8,000 ADA | 20 | 22 | 23 | 25 | 28 | 28 |
| 8,000-18,200 ADA | 24 | 25 | 27 | 28 | 30 | 33 |
| 18,200-40,000 ADA | 24 | 27 | 27 | 28 | 28 | 30 |
| OVER 40,000 ADA | 24 | 28 | 28 | 28 | 30 | 31 |
| CORRELATED LANGUAGE ARTS III (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 15 | 17 | 18 | 21 | 23 | 25 |
| 2,555-8,000 ADA | 21 | 23 | 24 | 28 | 26 | 29 |
| 8,000-18,200 ADA | 22 | 24 | 25 | 27 | 29 | 30 |
| 18,200-40,000 ADA | 22 | 28 | 27 | 28 | 30 | 32 |
| OVER 40,000 ADA | 25 | 26 | 27 | 30 | 31 | 32 |
| CORRELATED LANGUAGE ARTS IV (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 16 | 18 | 20 | 24 | 26 | 27 |
| 2,555-8,000 ADA | 23 | 26 | 27 | 28 | 30 | 31 |
| 8,000-18,200 ADA | 24 | 25 | 26 | 28 | 29 | 30 |
| 18,200-40,000 ADA | 23 | 24 | 26 | 27 | 27 | 29 |
| OVER 40,000 ADA | 26 | 28 | 28 | 30 | 30 | 33 |
| ENGLISH LANGUAGE ARTS, GRADE 7 (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 21 | 23 | 24 | 28 | 28 | 28 |
| 2,555-8,000 ADA | 23 | 25 | 28 | 27 | 28 | 30 |
| 8,000-18,200 ADA | 24 | 28 | 27 | 28 | 28 | 30 |
| 18,200-40,000 ADA | 23 | 25 | 28 | 28 | 29 | 31 |
| OVER 40,000 ADA | 28 | 27 | 28 | 30 | 30 | 32 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| ENGLISH LANGUAGE ARTS, GRADE 8 (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 20 | 22 | 24 | 26 | 27 | 29 |
| 2.555-8.000 ADA | 23 | 25 | 26 | 27 | 28 | 30 |
| 8.000-19.200 ADA | 24 | 26 | 27 | 29 | 30 | 31 |
| 19.200-40.000 ADA | 23 | 25 | 26 | 28 | 29 | 31 |
| OVER 40.000 ADA | 26 | 28 | 28 | 30 | 31 | 33 |
| READING IMPROVEMENT, GRADE 7 (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 17 | 20 | 21 | 23 | 26 | 32 |
| 2.555-8,000 ADA | 20 | 23 | 24 | 27 | 27 | 29 |
| 8.000-19.200 ADA | 19 | 21 | 23 | 25 | 27 | 29 |
| 19.200-40.000 ADA | 19 | 20 | 21 | 23 | 23 | 25 |
| OVER 40,000 ADA | 26 | 28 | 29 | 30 | 32 | 34 |
| READING IMPROVEMENT, GRADE 8 (1 UNIT) | | | | | | |
| UNDER 2.555 ADA | 16 | 19 | 21 | 23 | 25 | 27 |
| 2.555-8.000 ADA | 19 | 22 | 23 | 26 | 27 | 27 |
| 8.000-19,200 ADA | 17 | 20 | 21 | 22 | 24 | 24 |
| 19.200-40.000 ADA | 19 | 22 | 23 | 24 | 25 | 26 |
| OVER 40,000 ADA | 25 | 27 | 28 | 30 | 30 | 32 |
| ECONOMICS WITH EMPHASIS ON THE FREE ENTE | | | | | | |
| UNDER 2.555 ADA | 22 | 24 | 25 | 27 | 28 | 31 |
| 2.555-8.000 ADA | 26 | 28 | 29 | 30 | 31 | 33 |
| 8,000-19.200 ADA | 28 | 30 | 30 | 32 | 33 | 35 |
| 19.200-40.000 ADA | 28 | 30 | 31 | 32 | 33 | 33 |
| OVER 40,000 ADA | 29 | 31 | 32 | 33 | 34 | 35 |
| WORLD GEOGRAPHY STUDIES (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 24 | 26 | 28 | 30 | 32 |
| 2.555-8.000 ADA | 26 | 27 | 28 | 30 | 30 | 32 |
| 8.000-19.200 ADA | 27 | 29 | 30 | 31 | 32 | 32 |
| 19.200-40.000 ADA | 27 | 28 | 30 | 31 | 32 | 33 |
| OVER 40,000 ADA | 28 | 30 | 31 | 32 | 33 | 34 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| UNITED STATES GOVERNMENT (1/2 UNIT) | | | | | | |
| UNDER 2.555 ADA | 22 | 24 | 26 | 27 | 28 | 31 |
| 2.555-8,000 ADA | 26 | 28 | 30 | 31 | 32 | 33 |
| 8.000-19.200 ADA | 27 | 29 | 31 | 32 | 33 | 35 |
| 19.200-40.000 ADA | 28 | 30 | 31 | 32 | 33 | 34 |
| OVER 40,000 ADA | 29 | 30 | 31 | 32 | 33 | 34 |
| UNITED STATES HISTORY (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 23 | 25 | 27 | 28 | 30 | 31 |
| 2.555-8.000 ADA | 26 | 28 | 29 | 31 | 31 | 33 |
| 8.000-19.200 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| 19.200-40,000 ADA | 27 | 29 | 30 | 31 | 31 | 32 |
| OVER 40.000 ADA | 29 | 31 | 32 | 33 | 33 | 34 |
| WORLD HISTORY STUDIES (1 UNIT) | | | | | | |
| UNDER 2,555 ADA | 22 | 25 | 27 | 28 | 29 | 31 |
| 2,555-8,000 ADA | 26 | 28 | 29 | 30 | 31 | 32 |
| 8,000-19,200 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| 19,200-40.000 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| OVER 40.000 ADA | 29 | 31 | 32 | 33 | 33 | 34 |
| TEXAS HISTORY AND GEOGRAPHY, GRADE 7 (1 | | | | | | |
| UNDER 2.555 ADA | 23 | 24 | 26 | 28 | 29 | 30 |
| 2,555-8.000 ADA | 24 | 26 | 27 | 28 | 29 | 30 |
| 8,000-19.200 ADA | 26 | 27 | 28 | 29 | 30 | 31 |
| 19.200-40.000 ADA | 24 | 26 | 27 | 29 | 30 | 32 |
| OVER 40.000 ADA | 27 | 28 | 29 | 30 | 31 | 32 |
| U.S. HISTORY AND CITIZENSHIP, GRADE 8 (1 | | | | | | |
| UNDER 2.555 ADA | 22 | 24 | 26 | 27 | 29 | 30 |
| 2.555-8.000 ADA | 24 | 25 | 27 | 28 | 29 | 30 |
| 8,000-19,200 ADA | 25 | 27 | 28 | 29 | 29 | 30 |
| 19,200-40,000 ADA | 24 | 26 | 27 | 29 | 30 | 32 |
| OVER 40,000 ADA | 27 | 28 | 29 | 30 | 31 | 32 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| OTHER LANGUAGES LEVEL I (1 UNIT) - FRENC | | | | | | |
| UNDER 2.555 ADA | 20 | 22 | 24 | 28 | 27 | 29 |
| 2.555-8.000 ADA | 23 | 25 | 26 | 28 | 29 | 30 |
| 8.000-19.200 ADA | 25 | 27 | 28 | 29 | 30 | 30 |
| 19.200-40.000 ADA | 25 | 28 | 30 | 30 | 32 | 33 |
| OVER 40.000 ADA | 27 | 29 | 31 | 32 | 32 | 34 |
| OTHER LANGUAGES LEVEL II (1 UNIT) - FREN | | | | | | |
| UNDER 2.555 ADA | 16 | 19 | 23 | 26 | 27 | 29 |
| 2.555-8.000 ADA | 21 | 23 | 25 | 27 | 28 | 32 |
| 8.000-19.200 ADA | 22 | 24 | 25 | 27 | 28 | 28 |
| 19.200-40.000 ADA | 24 | 25 | 27 | 29 | 31 | 32 |
| OVER 40.000 ADA | 25 | 27 | 29 | 30 | 32 | 34 |
| OTHER LANGUAGES LEVEL I (1 UNIT) - GERMA | | | | | | |
| UNDER 2.555 ADA | 17 | 19 | 20 | 21 | 24 | 28 |
| 2.555-8.000 ADA | 20 | 23 | 25 | 27 | 27 | 28 |
| 8.000-19.200 ADA | 19 | 22 | 23 | 26 | 26 | 28 |
| 19.200-40.000 ADA | 21 | 22 | 24 | 24 | 25 | 26 |
| OVER 40.000 ADA | 26 | 28 | 31 | 33 | 34 | 35 |
| OTHER LANGUAGES LEVEL II (1 UNIT) - GERM | | | | | | |
| UNDER 2.555 ADA | 14 | 17 | 19 | 23 | 23 | 25 |
| 2.555-8.000 ADA | 17 | 21 | 23 | 25 | 25 | 29 |
| 8.000-19.200 ADA | 18 | 20 | 21 | 22 | 24 | 26 |
| 19.200-40.000 ADA | 17 | 18 | 19 | 21 | 21 | 26 |
| OVER 40.000 ADA | 22 | 25 | 27 | 32 | 33 | 33 |
| OTHER LANGUAGES LEVEL I (1 UNIT) - LATIN | | | | | | |
| UNDER 2.555 ADA | 21 | 28 | 28 | 29 | 31 | 31 |
| 2.555-8.000 ADA | 21 | 23 | 25 | 27 | 27 | 29 |
| 8.000-19.200 ADA | 24 | 28 | 27 | 25 | 28 | 31 |
| 19.200-40.000 ADA | 22 | 24 | 25 | 27 | 28 | 29 |
| OVER 40.000 ADA | 24 | 26 | 29 | 31 | 31 | 36 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR THE REQUIRED CURRICULUM
ELEMENTARY CLASS SIZES GREATER THAN 35 DELETED FROM THE ANALYSIS
SECONDARY CLASS SIZES GREATER THAN 40 DELETED FROM THE ANALYSIS
APPENDIX A.1

| COURSE / SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| OTHER LANGUAGES LEVEL II (1 UNIT) - LATI | | | | | | |
| UNDER 2.555 ADA | 19 | 21 | 22 | 22 | 25 | 25 |
| 2.555-8.000 ADA | 18 | 20 | 24 | 25 | 28 | 33 |
| 8.000-19.200 ADA | 19 | 23 | 24 | 24 | 27 | 28 |
| 19.200-40.000 ADA | 18 | 21 | 24 | 25 | 31 | 31 |
| OVER 40.000 ADA | 19 | 23 | 24 | 26 | 29 | 30 |
| OTHER LANGUAGES LEVEL I (1 UNIT) - SPANI | | | | | | |
| UNDER 2.555 ADA | 21 | 24 | 25 | 27 | 28 | 30 |
| 2.555-8.000 ADA | 28 | 28 | 29 | 30 | 31 | 33 |
| 8.000-19.200 ADA | 27 | 29 | 30 | 31 | 32 | 33 |
| 19.200-40.000 ADA | 28 | 29 | 30 | 31 | 32 | 32 |
| OVER 40.000 ADA | 30 | 31 | 32 | 33 | 33 | 34 |
| OTHER LANGUAGES LEVEL II (1 UNIT) - SPAN | | | | | | |
| UNDER 2.555 ADA | 18 | 21 | 23 | 25 | 26 | 28 |
| 2.555-8.000 ADA | 24 | 26 | 28 | 29 | 30 | 32 |
| 8.000-19.200 ADA | 25 | 26 | 28 | 29 | 30 | 32 |
| 19.200-40.000 ADA | 25 | 26 | 28 | 29 | 30 | 31 |
| OVER 40.000 ADA | 28 | 29 | 30 | 32 | 32 | 33 |
| COMPUTER LITERACY, GRADES 7-8 (1/2 UNIT) | | | | | | |
| UNDER 2.555 ADA | 17 | 20 | 21 | 23 | 25 | 27 |
| 2.555-8.000 ADA | 21 | 23 | 24 | 27 | 28 | 30 |
| 8.000-19.200 ADA | 22 | 24 | 25 | 26 | 27 | 28 |
| 19.200-40.000 ADA | 23 | 24 | 26 | 28 | 28 | 29 |
| OVER 40.000 ADA | 24 | 26 | 28 | 29 | 30 | 32 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR JUNIOR HIGH ELECTIVE COURSES
REPORTED CLASS SIZES GREATER THAN OR EQUAL TO 98 DELETED
APPENDIX A.2

| JR. HIGH ELECTIVE SIZE GROUP | 50TH %ILE | 65TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| FOREIGN LANGUAGES | | | | | | |
| UNDER 2.555 ADA | 20 | 23 | 25 | 28 | 29 | 32 |
| 2.555-8.000 ADA | 22 | 25 | 27 | 29 | 30 | 31 |
| 8.000-19.200 ADA | 23 | 25 | 27 | 29 | 30 | 31 |
| 19.200-40.000 ADA | 22 | 24 | 26 | 27 | 29 | 32 |
| OVER 40.000 ADA | 23 | 25 | 27 | 30 | 31 | 34 |
| FINE ARTS | | | | | | |
| UNDER 2.555 ADA | 27 | 38 | 47 | 58 | 68 | 80 |
| 2.555-8.000 ADA | 28 | 38 | 48 | 60 | 68 | 78 |
| 8.000-19.200 ADA | 25 | 29 | 35 | 48 | 55 | 64 |
| 19.200-40.000 ADA | 28 | 30 | 35 | 43 | 49 | 62 |
| OVER 40.000 ADA | 27 | 30 | 35 | 42 | 48 | 62 |
| HEALTH | | | | | | |
| UNDER 2.555 ADA | 21 | 23 | 25 | 27 | 31 | 36 |
| 2.555-8.000 ADA | 24 | 28 | 30 | 38 | 40 | 66 |
| 8.000-19.200 ADA | 22 | 24 | 27 | 27 | 29 | 30 |
| 19.200-40.000 ADA | 26 | 29 | 31 | 32 | 34 | 36 |
| OVER 40.000 ADA | 28 | 32 | 36 | 40 | 44 | 51 |
| PHYSICAL EDUCATION | | | | | | |
| UNDER 2.555 ADA | 28 | 33 | 39 | 49 | 55 | 87 |
| 2.555-8.000 ADA | 31 | 35 | 42 | 57 | 66 | 83 |
| 8.000-19.200 ADA | 28 | 33 | 38 | 47 | 59 | 73 |
| 19.200-40.000 ADA | 30 | 35 | 39 | 44 | 48 | 61 |
| OVER 40.000 ADA | 37 | 42 | 46 | 50 | 53 | 58 |
| ALL OTHER ELECTIVES | | | | | | |
| UNDER 2.555 ADA | 20 | 22 | 24 | 28 | 27 | 29 |
| 2.555-8.000 ADA | 23 | 25 | 26 | 28 | 30 | 32 |
| 8.000-18.200 ADA | 24 | 26 | 27 | 29 | 30 | 32 |
| 19.200-40.000 ADA | 24 | 28 | 27 | 30 | 36 | 43 |
| OVER 40.000 ADA | 25 | 27 | 28 | 30 | 31 | 32 |

CLASS SIZE DATA FOR SELECTED PERCENTILES OF STUDENTS
IN EACH OF FIVE DISTRICT SIZE GROUPS
SIZES SHOWN ARE FOR HIGH SCHOOL ELECTIVE COURSES
REPORTED CLASS SIZES GREATER THAN OR EQUAL TO 98 DELETED
APPENDIX A.2

| HIGH SCHOOL ELECTIVES SIZE GROUP | 50TH %ILE | 85TH %ILE | 75TH %ILE | 85TH %ILE | 90TH %ILE | 95TH %ILE |
|---|---|---|---|---|---|---|
| FOREIGN LANGUAGES | | | | | | |
| UNDER 2.555 ADA | 20 | 23 | 24 | 28 | 28 | 30 |
| 2.555-8.000 ADA | 25 | 27 | 28 | 30 | 31 | 33 |
| 8.000-19.200 ADA | 25 | 27 | 28 | 30 | 32 | 33 |
| 19.200-40.000 ADA | 25 | 27 | 28 | 30 | 31 | 32 |
| OVER 40.000 ADA | 28 | 30 | 31 | 32 | 33 | 35 |
| FINE ARTS | | | | | | |
| UNDER 2.555 ADA | 25 | 34 | 46 | 64 | 72 | 86 |
| 2.555-8.000 ADA | 28 | 30 | 36 | 52 | 84 | 80 |
| 8.000-18.200 ADA | 27 | 30 | 34 | 48 | 59 | 72 |
| 19.200-40.000 ADA | 27 | 30 | 33 | 45 | 54 | 65 |
| OVER 40,000 ADA | 28 | 31 | 33 | 37 | 47 | 83 |
| HEALTH | | | | | | |
| UNDER 2.555 ADA | 22 | 25 | 27 | 29 | 31 | 34 |
| 2.555-8.000 ADA | 27 | 29 | 30 | 32 | 33 | 34 |
| 8.000-19.200 ADA | 28 | 29 | 31 | 32 | 34 | 35 |
| 19.200-40.000 ADA | 27 | 29 | 30 | 31 | 33 | 34 |
| OVER 40.000 ADA | 30 | 32 | 34 | 35 | 37 | 42 |
| PHYSICAL EDUCATION | | | | | | |
| UNDER 2.555 ADA | 29 | 36 | 44 | 55 | 63 | 71 |
| 2.555-8.000 ADA | 28 | 34 | 40 | 50 | 59 | 73 |
| 8.000-19.200 ADA | 29 | 34 | 39 | 50 | 60 | 72 |
| 19.200-40.000 ADA | 28 | 33 | 37 | 43 | 48 | 58 |
| OVER 40,000 ADA | 34 | 40 | 45 | 51 | 56 | 66 |
| ALL OTHER ELECTIVES | | | | | | |
| UNDER 2.555 ADA | 16 | 19 | 21 | 24 | 26 | 29 |
| 2.555-8.000 ADA | 21 | 24 | 26 | 29 | 30 | 33 |
| 8.000-19.200 ADA | 24 | 26 | 28 | 30 | 32 | 36 |
| 18.200-40.000 ADA | 24 | 28 | 28 | 30 | 32 | 38 |
| OVER 40.000 ADA | 25 | 28 | 29 | 31 | 33 | 36 |

APPENDIX B

Costs for Instructional Salaries

Costs are Shown by Grade Level
and by Each of Five District Size Groups

Group 1

APPENDIX B
Cost of Instructional Salaries

| | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| **Elementary Grades:** | | | | | | | |
| Kindergarten | 52.42 | 20 | 2.6 | 1 | 2.6 | | |
| Grade 1 | 65.76 | 20 | 3.3 | 1 | 3.3 | | |
| Grade 2 | 63.60 | 20 | 3.2 | 1 | 3.2 | | |
| Grade 3 | 62.55 | 20 | 3.1 | 1 | 3.1 | | |
| Grade 4 | 64.38 | 20 | 3.2 | 1 | 3.2 | | |
| Grade 5 | 69.29 | 27 | 2.6 | 1 | 2.6 | | |
| Grade 6 | 85.92 | 26 | 3.3 | 1 | 3.3 | | |
| Elementary Sub-Totals: | 463.92 | | 21.3 | | 21.3 | $22,459 | $478,521 |
| Planning Period Add On: | | | | | 2.1 | $22,459 | $47,852 |
| | | | | | Cost per Pupil: | | $1,135 |
| **7-8th Grade Subjects:** | | | | | | | |
| Life Science (Grade 7) | 53.02 | 27 | 2.0 | 6 | 0.3 | | |
| Earth Science (Grade 8) | 51.10 | 27 | 1.9 | 6 | 0.3 | | |
| Mathematics (Grade 7) | 49.46 | 27 | 1.8 | 6 | 0.3 | | |
| Mathematics (Grade 8) | 45.53 | 26 | 1.8 | 6 | 0.3 | | |
| English/Language Arts (Grade 7) | 48.84 | 26 | 1.9 | 6 | 0.3 | | |
| English/Language Arts (Grade 8) | 46.21 | 26 | 1.8 | 6 | 0.3 | | |
| Reading Improvement (Grade 7) | 5.50 | 23 | 0.2 | 6 | 0.0 | | |
| Reading Improvement (Grade 8) | 5.10 | 23 | 0.2 | 6 | 0.0 | | |
| Texas History and Geography (Grade 7) | 53.40 | 28 | 1.9 | 6 | 0.3 | | |
| U.S. History and Citizenship (Grade 8) | 51.23 | 27 | 1.9 | 6 | 0.3 | | |
| Computer Literacy (Grade 7-8) | 31.53 | 23 | 1.4 | 6 | 0.2 | | |
| Electives: | | | | | | | |
| Health (Grade 7-8) | 9.49 | 27 | 0.4 | 6 | 0.1 | | |
| P.E. (Grade 7-8) | 93.68 | 49 | 1.9 | 6 | 0.3 | | |
| Fine Arts (Grade 7-8) | 61.65 | 58 | 1.1 | 6 | 0.2 | | |
| Foreign Languages (Grade 7-8) | 3.90 | 28 | 0.1 | 6 | 0.0 | | |
| All Other Electives (Grade 7-8) | 56.01 | 26 | 2.2 | 6 | 0.4 | | |
| Junior High Sub-Totals: | 665.65 | | 22.4 | | 3.7 | $23,368 | $87,050 |
| | | | | | Cost per Registration: | | $131 |
| | | | | | Cost per Pupil: | | $915 |

Group 1

# APPENDIX B
## Cost of Instructional Salaries

| High School Subjects: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Science | | | | | | | |
| Introduction to Biology | 9.33 | 24 | 0.4 | 5 | 0.1 | | |
| Biology I | 38.88 | 26 | 1.5 | 5 | 0.3 | | |
| Chemistry I | 19.20 | 23 | 0.8 | 5 | 0.2 | | |
| Physics I | 5.22 | 21 | 0.2 | 5 | 0.0 | | |
| Physical Science | 43.61 | 27 | 1.6 | 5 | 0.3 | | |
| Mathematics | | | | | | | |
| Fundamentals of Mathematics | 7.58 | 24 | 0.3 | 5 | 0.1 | | |
| Consumer Mathematics | 8.93 | 25 | 0.4 | 5 | 0.1 | | |
| Pre-Algebra | 19.20 | 27 | 0.7 | 5 | 0.1 | | |
| Informal Geometry | 4.23 | 24 | 0.2 | 5 | 0.0 | | |
| Algebra I | 41.47 | 27 | 1.5 | 5 | 0.3 | | |
| Algebra II | 24.48 | 27 | 0.9 | 5 | 0.2 | | |
| Geometry | 25.46 | 26 | 1.0 | 5 | 0.2 | | |
| Trigonometry | 5.67 | 20 | 0.3 | 5 | 0.1 | | |
| Elementary Analysis | 0.10 | 22 | 0.0 | 5 | 0.0 | | |
| Analytic Geometry | 0.13 | 23 | 0.0 | 5 | 0.0 | | |
| Pre-Calculus | 2.02 | 25 | 0.1 | 5 | 0.0 | | |
| Mathematics of Consumer Economics | 2.26 | 28 | 0.1 | 5 | 0.0 | | |
| English/Language Arts | | | | | | | |
| English I | 38.58 | 26 | 1.5 | 5 | 0.3 | | |
| English II | 36.11 | 26 | 1.4 | 5 | 0.3 | | |
| English III | 35.18 | 26 | 1.4 | 5 | 0.3 | | |
| English IV | 23.84 | 26 | 0.9 | 5 | 0.2 | | |
| English IV Academic (Composition) | 4.95 | 26 | 0.2 | 5 | 0.0 | | |
| English IV Academic (British Lit.) | 1.73 | 25 | 0.1 | 5 | 0.0 | | |
| Correlated Language Arts I | 5.95 | 24 | 0.2 | 5 | 0.0 | | |
| Correlated Language Arts II | 5.33 | 21 | 0.3 | 5 | 0.1 | | |
| Correlated Language Arts III | 4.66 | 21 | 0.2 | 5 | 0.0 | | |
| Correlated Language Arts IV | 3.96 | 24 | 0.2 | 5 | 0.0 | | |
| Social Studies | | | | | | | |
| Economics w. Emphasis on Free Ent. | 10.00 | 27 | 0.4 | 5 | 0.1 | | |
| World Geography Studies | 11.61 | 28 | 0.4 | 5 | 0.1 | | |
| United States Government | 33.32 | 27 | 1.2 | 5 | 0.2 | | |
| United States History | 54.02 | 28 | 1.9 | 5 | 0.4 | | |
| World History Studies | 41.42 | 28 | 1.5 | 5 | 0.3 | | |

Group 1

# APPENDIX B
## Cost of Instructional Salaries

| Electives: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Foreign Languages | | | | | | | |
| All Foreign Languages | 49.43 | 26 | 1.9 | 5 | 0.4 | | |
| Physical Education/Health | | | | | | | |
| Health Education | 35.58 | 29 | 1.2 | 5 | 0.2 | | |
| All Physical Education | 118.24 | 55 | 2.1 | 5 | 0.4 | | |
| Fine Arts | | | | | | | |
| Other Fine Arts | 76.27 | 64 | 1.2 | 5 | 0.2 | | |
| All Other Electives | 210.51 | 24 | 8.8 | 5 | 1.8 | | |
| High School Sub-Totals: | 1,058.46 | | 37.0 | | 7.4 | $23,368 | $172,827 |

Cost per Registration: $163

Cost per Pupil: $980

Total Weighted Average Cost
Per Pupil For Instructional Salaries: $1,069

Group 2

## APPENDIX B
## Cost of Instructional Salaries

| | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr.(FTE's) | Estimated # Teachers Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| **Elementary Grades:** | | | | | | | |
| Kindergarten | 259.10 | 20 | 13.0 | 1 | 13.0 | | |
| Grade 1 | 364.55 | 20 | 18.2 | 1 | 18.2 | | |
| Grade 2 | 351.59 | 20 | 17.6 | 1 | 17.6 | | |
| Grade 3 | 342.15 | 20 | 17.1 | 1 | 17.1 | | |
| Grade 4 | 340.63 | 20 | 17.0 | 1 | 17.0 | | |
| Grade 5 | 340.44 | 28 | 12.2 | 1 | 12.2 | | |
| Grade 6 | 381.65 | 27 | 14.1 | 1 | 14.1 | | |
| Elementary Sub-Totals: | 2,380.11 | | 96.2 | | 109.2 | $23,511 | $2,567,273 |
| Planning Period Add On: | | | | | 10.9 | $23,511 | $256,727 |
| | | | | | Cost per Pupil: | | $1,187 |
| **7-8th Grade Subjects:** | | | | | | | |
| Life Science (Grade 7) | 312.99 | 28 | 11.2 | 6 | 1.9 | | |
| Earth Science (Grade 8) | 298.54 | 28 | 10.7 | 6 | 1.[illegible] | | |
| Mathematics (Grade 7) | 302.16 | 28 | 10.8 | 6 | 1.8 | | |
| Mathematics (Grade 8) | 266.68 | 27 | 9.9 | 6 | 1.6 | | |
| English/Language Arts (Grade 7) | 293.43 | 27 | 10.9 | 6 | 1.8 | | |
| English/Language Arts (Grade 8) | 275.52 | 27 | 10.2 | 6 | 1.7 | | |
| Reading Improvement (Grade 7) | 29.22 | 27 | 1.1 | 6 | 0.2 | | |
| Reading Improvement (Grade 8) | 23.89 | 26 | 0.9 | 6 | 0.2 | | |
| Texas History and Geography (Grade 7) | 315.94 | 28 | 11.3 | 6 | 1.9 | | |
| U.S. History and Citizenship (Grade 8) | 307.59 | 28 | 11.0 | 6 | 1.8 | | |
| Computer Literacy (Grade 7-8) | 149.77 | 27 | 5.5 | 6 | 0.9 | | |
| Electives: | | | | | | | |
| Health (Grade 7-8) | 35.04 | 38 | 0.9 | 6 | 0.2 | | |
| P. E. (Grade 7-8) | 419.49 | 57 | 7.4 | 6 | 1.2 | | |
| Fine Arts (Grade 7-8) | 397.58 | 60 | 6.6 | 6 | 1.1 | | |
| Foreign Languages (Grade 7-8) | 45.00 | 29 | 1.6 | 6 | 0.3 | | |
| All Other Electives (Grade 7-8) | 304.62 | 28 | 10.9 | 6 | 1.8 | | |
| Junior High Sub-Totals: | 3,777.46 | | 120.7 | | 20.1 | $24,378 | $490,554 |
| | | | | | Cost per Registration: | | $130 |
| | | | | | Cost per Pupil: | | $909 |

Group 2

## APPENDIX B
## Cost of Instructional Salaries

| High School Subjects: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Science | | | | | | | |
| Introduction to Biology | 63.14 | 28 | 2.3 | 5 | 0.5 | | |
| Biology I | 239.23 | 28 | 8.5 | 5 | 1.7 | | |
| Chemistry I | 108.79 | 26 | 4.2 | 5 | 0.8 | | |
| Physics I | 27.97 | 25 | 1.1 | 5 | 0.2 | | |
| Physical Science | 229.79 | 29 | 7.9 | 5 | 1.6 | | |
| Mathematics | | | | | | | |
| Fundamentals of Mathematics | 33.53 | 28 | 1.2 | 5 | 0.2 | | |
| Consumer Mathematics | 50.00 | 28 | 1.8 | 5 | 0.4 | | |
| Pre-Algebra | 118.73 | 30 | 4.0 | 5 | 0.8 | | |
| Informal Geometry | 43.17 | 30 | 1.4 | 5 | 0.3 | | |
| Algebra I | 265.35 | 30 | 8.8 | 5 | 1.8 | | |
| Algebra II | 150.01 | 29 | 5.2 | 5 | 1.0 | | |
| Geometry | 153.57 | 29 | 5.3 | 5 | 1.1 | | |
| Trigonometry | 31.24 | 30 | 1.0 | 5 | 0.2 | | |
| Elementary Analysis | 2.01 | 22 | 0.1 | 5 | 0.0 | | |
| Analytic Geometry | 0.73 | 19 | 0.0 | 5 | 0.0 | | |
| Pre-Calculus | 15.16 | 27 | 0.6 | 5 | 0.1 | | |
| Mathematics of Consumer Economics | 29.14 | 30 | 1.0 | 5 | 0.2 | | |
| English/Language Arts | | | | | | | |
| English I | 243.54 | 29 | 8.4 | 5 | 1.7 | | |
| English II | 224.89 | 29 | 7.8 | 5 | 1.6 | | |
| English III | 223.48 | 29 | 7.7 | 5 | 1.5 | | |
| English IV | 149.90 | 29 | 5.2 | 5 | 1.0 | | |
| English IV Academic (Composition) | 34.89 | 28 | 1.2 | 5 | 0.2 | | |
| English IV Academic (British Lit.) | 5.05 | 29 | 0.2 | 5 | 0.0 | | |
| Correlated Language Arts I | 34.36 | 25 | 1.4 | 5 | 0.3 | | |
| Correlated Language Arts II | 27.02 | 25 | 1.1 | 5 | 0.2 | | |
| Correlated Language Arts III | 28.24 | 26 | 1.1 | 5 | 0.2 | | |
| Correlated Language Arts IV | 23.90 | 28 | 0.9 | 5 | 0.2 | | |
| Social Studies | | | | | | | |
| Economics w. Emphasis on Free Ent. | 92.30 | 30 | 3.1 | 5 | 0.6 | | |
| World Geography Studies | 78.37 | 30 | 2.6 | 5 | 0.5 | | |
| United States Government | 151.09 | 31 | 4.9 | 5 | 1.0 | | |
| United States History | 323.02 | 31 | 10.4 | 5 | 2.1 | | |
| World History Studies | 229.16 | 30 | 7.6 | 5 | 1.5 | | |

Group 2

## APPENDIX B
### Cost of Instructional Salaries

| | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Electives: | | | | | | | |
| Foreign Languages | | | | | | | |
| All Foreign Languages | 346.39 | 30 | 11.5 | 5 | 2.3 | | |
| Physical Education/Health | | | | | | | |
| Health Education | 166.15 | 32 | 5.2 | 5 | 1.0 | | |
| All Physical Education | 517.89 | 50 | 10.4 | 5 | 2.1 | | |
| Fine Arts | | | | | | | |
| All Fine Arts | 440.56 | 52 | 8.5 | 5 | 1.7 | | |
| All Other Electives | 1,152.63 | 29 | 39.7 | 5 | 7.9 | | |
| High School Sub-Totals: | 6,054.39 | | 193.2 | | 38.6 | $24,378 | $941,975 |

Cost per Registration: $156

**Cost per Pupil: $934**

**Total Weighted Average Cost Per Pupil For Instructional Salaries: $1,083**

Group 3

## APPENDIX B
### Cost of Instructional Salaries

| Elementary Grades: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Kindergarten | 677.17 | 20 | 33.9 | 1 | 33.9 | | |
| Grade 1 | 1,153.37 | 20 | 57.7 | 1 | 57.7 | | |
| Grade 2 | 1,065.31 | 20 | 53.3 | 1 | 53.3 | | |
| Grade 3 | 1,019.13 | 20 | 51.0 | 1 | 51.0 | | |
| Grade 4 | 1,103.47 | 20 | 55.2 | 1 | 55.2 | | |
| Grade 5 | 1,115.75 | 28 | 39.8 | 1 | 39.8 | | |
| Grade 6 | 1,175.90 | 29 | 40.5 | 1 | 40.5 | | |
| Elementary Sub-Totals: | 7,310.10 | | 297.5 | | 331.3 | $24,525 | $8,125,598 |
| Planning Period Add On: | | | | | 33.1 | $24,525 | $812,560 |
| | | | | | Cost per Pupil: | | $1,223 |
| **7-8th Grade Subjects:** | | | | | | | |
| Life Science (Grade 7) | 731.16 | 29 | 25.2 | 6 | 4.2 | | |
| Earth Science (Grade 8) | 804.04 | 29 | 27.7 | 6 | 4.6 | | |
| Mathematics (Grade 7) | 824.09 | 29 | 28.4 | 6 | 4.7 | | |
| Mathematics (Grade 8) | 749.80 | 29 | 25.9 | 6 | 4.3 | | |
| English/Language Arts (Grade 7) | 770.40 | 29 | 26.6 | 6 | 4.4 | | |
| English/Language Arts (Grade 8) | 717.42 | 29 | 24.7 | 6 | 4.1 | | |
| Reading Improvement (Grade 7) | 83.51 | 25 | 3.3 | 6 | 0.6 | | |
| Reading Improvement (Grade 8) | 98.20 | 22 | 4.5 | 6 | 0.7 | | |
| Texas History and Geography (Grade 7) | 853.82 | 29 | 29.4 | 6 | 4.9 | | |
| U.S. History and Citizenship (Grade 8) | 798.80 | 29 | 27.5 | 6 | 4.6 | | |
| Computer Literacy (Grade 7-8) | 415.96 | 26 | 16.0 | 6 | 2.7 | | |
| Electives: | | | | | | | |
| Health (Grade 7-8) | 463.22 | 27 | 17.2 | 6 | 2.9 | | |
| P.E. (Grades 7-8) | 1,762.49 | 47 | 37.5 | 6 | 6.2 | | |
| Fine Arts (Grade 7-8) | 982.91 | 48 | 20.5 | 6 | 3.4 | | |
| Foreign Languages (Grade 7-8) | 205.58 | 29 | 7.1 | 6 | 1.2 | | |
| All Other Electives (Grade 7-8) | 843.58 | 29 | 29.1 | 6 | 4.8 | | |
| Junior High Sub-Totals: | 11,104.98 | | 350.6 | | 58.4 | $25,370 | $1,482,516 |
| | | | | | Cost per Registration: | | $134 |
| | | | | | Cost per Pupil: | | $935 |

Group 3

APPENDIX B

Cost of Instructional Salaries

| High School Subjects: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | (FTE's) Estimated # Teachers Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Science | | | | | | | |
| Introduction to Biology | 201.38 | 29 | 6.9 | 5 | 1.4 | | |
| Biology I | 732.22 | 30 | 24.4 | 5 | 4.9 | | |
| Chemistry I | 321.02 | 28 | 11.5 | 5 | 2.3 | | |
| Physics I | 106.13 | 28 | 3.8 | 5 | 0.8 | | |
| Physical Science | 632.44 | 29 | 21.8 | 5 | 4.4 | | |
| Mathematics | | | | | | | |
| Fundamentals of Mathematics | 134.36 | 29 | 4.6 | 5 | 0.9 | | |
| Consumer Mathematics | 173.82 | 30 | 5.8 | 5 | 1.2 | | |
| Pre-Algebra | 425.53 | 30 | 14.2 | 5 | 2.8 | | |
| Informal Geometry | 169.84 | 30 | 5.7 | 5 | 1.1 | | |
| Algebra I | 745.87 | 31 | 24.1 | 5 | 4.8 | | |
| Algebra II | 414.33 | 31 | 13.4 | 5 | 2.7 | | |
| Geometry | 484.07 | 31 | 15.6 | 5 | 3.1 | | |
| Trigonometry | 70.13 | 30 | 2.3 | 5 | 0.5 | | |
| Elementary Analysis | 4.31 | 27 | 0.2 | 5 | 0.0 | | |
| Analytic Geometry | 1.60 | 26 | 0.1 | 5 | 0.0 | | |
| Pre-Calculus | 77.33 | 29 | 2.7 | 5 | 0.5 | | |
| Mathematics of Consumer Economics | 83.71 | 31 | 2.7 | 5 | 0.5 | | |
| English/Language Arts | | | | | | | |
| English I | 693.02 | 30 | 23.1 | 5 | 4.6 | | |
| English II | 679.16 | 30 | 22.6 | 5 | 4.5 | | |
| English III | 657.76 | 30 | 21.9 | 5 | 4.4 | | |
| English IV | 429.64 | 31 | 13.9 | 5 | 2.8 | | |
| English IV Academic (Composition) | 64.53 | 29 | 2.2 | 5 | 0.4 | | |
| English IV Academic (British Lit.) | 52.78 | 30 | 1.8 | 5 | 0.4 | | |
| Correlated Language Arts I | 122.69 | 27 | 4.5 | 5 | 0.9 | | |
| Correlated Language Arts II | 108.33 | 28 | 3.9 | 5 | 0.8 | | |
| Correlated Language Arts III | 91.11 | 27 | 3.4 | 5 | 0.7 | | |
| Correlated Language Arts IV | 23.90 | 28 | 0.9 | 5 | 0.2 | | |
| Social Studies | | | | | | | |
| Economics w. Emphasis on Free Ent. | 262.49 | 32 | .8.2 | 5 | 1.6 | | |
| World Geography Studies | 241.16 | 31 | 7.8 | 5 | 1.6 | | |
| United States Government | 392.00 | 32 | 12.3 | 5 | 2.5 | | |
| United States History | 965.27 | 31 | 31.1 | 5 | 6.2 | | |
| World History Studies | 710.96 | 31 | 22.9 | 5 | 4.6 | | |

Group 3

APPENDIX B
Cost of Instructional Salaries

| Electives: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Foreign Languages | | | | | | | |
| All Foreign Languages | 1,140.42 | 30 | 38.0 | 5 | 7.6 | | |
| Physical Education/Health | | | | | | | |
| Health Education | 40.20 | 32 | 1.3 | 5 | 0.3 | | |
| All Physical Education | 1,323.91 | 50 | 26.5 | 5 | 5.3 | | |
| Fine Arts | | | | | | | |
| All Fine Arts | 1,231.51 | 48 | 25.7 | 5 | 5.1 | | |
| All Other Electives | 3,850.04 | 30 | 128.3 | 5 | 25.7 | | |
| High School Sub-Totals: | 17,858.97 | | *559.8 | | 112.0 | $25,370 | $2,840,669 |

Cost per Registration: $159

Cost per Pupil: $954

Total Weighted Average Cost Per Pupil For Instructional Salaries $1,117

Group 4

# APPENDIX B
## Cost of Instructional Salaries

| | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| **Elementary Grades:** | | | | | | | |
| Kindergarten | 1,252.76 | 20 | 62.6 | 1 | 62.6 | | |
| Grade 1 | 2,461.51 | 20 | 123.1 | 1 | 123.1 | | |
| Grade 2 | 2,227.88 | 20 | 111.4 | 1 | 111.4 | | |
| Grade 3 | 2,234.43 | 20 | 111.7 | 1 | 111.7 | | |
| Grade 4 | 2,312.65 | 20 | 115.6 | 1 | 115.6 | | |
| Grade 5 | 2,317.23 | 28 | 82.8 | 1 | 82.8 | | |
| Grade 6 | 2,422.11 | 29 | 83.5 | 1 | 83.5 | | |
| Elementary Sub-Totals: | 15,228.57 | | 628.1 | | 690.7 | $25,083 | $17,325,850 |
| Planning Period Add On: | | | | | 69.1 | $25,083 | $1,732,585 |
| | | | | | Cost per Pupil: | | $1,251 |
| **7-8th Grade Subjects:** | | | | | | | |
| Life Science (Grade 7) | 1,968.33 | 29 | 67.9 | 6 | 11.3 | | |
| Earth Science (Grade 8) | 1,800.10 | 29 | 62.1 | 6 | 10.3 | | |
| Mathematics (Grade 7) | 1,845.71 | 28 | 65.9 | 6 | 11.0 | | |
| Mathematics (Grade 8) | 1,666.14 | 28 | 59.5 | 6 | 9.9 | | |
| English/Language Arts (Grade 7) | 1,912.29 | 28 | 68.3 | 6 | 11.4 | | |
| English/Language Arts (Grade 8) | 1,769.33 | 28 | 63.2 | 6 | 10.5 | | |
| Reading Improvement (Grade 7) | 115.67 | 23 | 5.0 | 6 | 0.8 | | |
| Reading Improvement (Grade 8) | 162.29 | 24 | 6.8 | 6 | 1.1 | | |
| Texas History and Geography (Grade 7) | 1,984.90 | 29 | 68.4 | 6 | 11.4 | | |
| U.S. History and Citizenship (Grade 8) | 1,927.29 | 29 | 66.5 | 6 | 11.1 | | |
| Computer Literacy (Grade 7-8) | 951.00 | 28 | 34.0 | 6 | 5.7 | | |
| Electives: | | | | | | | |
| Health (Grade 7-8) | 122.76 | 32 | 3.8 | 6 | 0.6 | | |
| P. E. (Grade 7-8) | 2,366.76 | 44 | 53.8 | 6 | 9.0 | | |
| Fine Arts (Grade 7-8) | 2,109.52 | 43 | 49.1 | 6 | 8.2 | | |
| Foreign Languages (Grade 7-8) | 494.24 | 27 | 18.3 | 6 | 3.1 | | |
| All Other Electives (Grade 7-8) | 1,801.00 | 30 | 60.0 | 6 | 10.0 | | |
| Junior High Sub-Totals: | 22,997.33 | | 752.5 | | 125.4 | $26,178 | $3,283,321 |
| | | | | | Cost per Registration: | | $143 |
| | | | | | Cost per Pupil: | | $999 |

Group 4

## APPENDIX B
## Cost of Instructional Salaries

| High School Subjects: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Science | | | | | | | |
| Introduction to Biology | 255.48 | 29 | 8.8 | 5 | 1.8 | | |
| Biology I | 1,580.48 | 30 | 52.7 | 5 | 10.5 | | |
| Chemistry I | 723.81 | 28 | 25.9 | 5 | 5.2 | | |
| Physics I | 257.95 | 27 | 9.6 | 5 | 1.9 | | |
| Physical Science | 1,531.48 | 30 | 51.0 | 5 | 10.2 | | |
| Mathematics | | | | | | | |
| Fundamentals of Mathematics | 177.19 | 28 | 6.3 | 5 | 1.3 | | |
| Consumer Mathematics | 211.19 | 30 | 7.0 | 5 | 1.4 | | |
| Pre-Algebra | 708.81 | 30 | 23.6 | 5 | 4.7 | | |
| Informal Geometry | 258.67 | 28 | 9.2 | 5 | 1.8 | | |
| Algebra I | 1,644.19 | 31 | 53.0 | 5 | 10.6 | | |
| Algebra II | 1,001.33 | 30 | 33.4 | 5 | 6.7 | | |
| Geometry | 1,102.19 | 30 | 36.7 | 5 | 7.3 | | |
| Trigonometry | 186.38 | 30 | 6.2 | 5 | 1.2 | | |
| Elementary Analysis | 6.57 | 21 | 0.3 | 5 | 0.1 | | |
| Analytic Geometry | 1.00 | 0 | N/A | 5 | N/A | | |
| Pre-Calculus | 187.76 | 28 | 6.7 | 5 | 1.3 | | |
| Mathematics of Consumer Economics | 197.71 | 31 | 6.4 | 5 | 1.3 | | |
| English/Language Arts | | | | | | | |
| English I | 1,556.57 | 30 | 51.9 | 5 | 10.4 | | |
| English II | 1,503.29 | 31 | 48.5 | 5 | 9.7 | | |
| English III | 1,509.57 | 31 | 48.7 | 5 | 9.7 | | |
| English IV | 793.90 | 31 | 25.6 | 5 | 5.1 | | |
| English IV Academic (Composition) | 372.86 | 31 | 12.0 | 5 | 2.4 | | |
| English IV Academic (British Lit.) | 165.00 | 28 | 5.9 | 5 | 1.2 | | |
| Correlated Language Arts I | 187.71 | 29 | 6.5 | 5 | 1.3 | | |
| Correlated Language Arts II | 169.48 | 28 | 6.1 | 5 | 1.2 | | |
| Correlated Language Arts III | 126.14 | 29 | 4.3 | 5 | 0.9 | | |
| Correlated Language Arts IV | 83.57 | 27 | 3.1 | 5 | 0.6 | | |
| Social Studies | | | | | | | |
| Economics w. Emphasis on Free Ent. | 705.00 | 32 | 22.0 | 5 | 4.4 | | |
| World Geography Studies. | 395.29 | 31 | 12.8 | 5 | 2.6 | | |
| United States Government | 882.67 | 32 | 27.6 | 5 | 5.5 | | |
| United States History | 1,939.76 | 31 | 62.6 | 5 | 12.5 | | |
| World History Studies | 1,473.10 | 31 | 47.5 | 5 | 9.5 | | |

Group 4

## APPENDIX B
## Cost of Instructional Salaries

| | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Electives: | | | | | | | |
| Foreign Languages | | | | | | | |
| All Foreign Languages | 2,789.24 | 30 | 93.0 | 5 | 18.6 | | |
| Physical Education/Health | | | | | | | |
| Health Education | 994.05 | 31 | 32.1 | 5 | 6.4 | | |
| All Physical Education | 2,892.62 | 43 | 67.3 | 5 | 13.5 | | |
| Fine Arts | | | | | | | |
| All Fine Arts | 2,759.76 | 45 | 61.3 | 5 | 12.3 | | |
| All Other Electives | 7,994.29 | 30 | 266.5 | 5 | 53.3 | | |
| High School Sub-Totals: | 39,326.06 | | 1242.1 | | 248.4 | $26,178 | $6,503,100 |

Cost per Registration: $165

Cost per Pupil: $992

Total Weighted Average Cost
Per Pupil For Instructional Salaries: $1,151

Group 5

## APPENDIX B
### Cost of Instructional Salaries

| Elementary Grades: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Kindergarten | 5,710.46 | 20 | 285.5 | 1 | 285.5 | | |
| Grade 1 | 6,974.68 | 20 | 348.7 | 1 | 348.7 | | |
| Grade 2 | 6,339.42 | 20 | 317.0 | 1 | 317.0 | | |
| Grade 3 | 6,320.79 | 20 | 316.0 | 1 | 316.0 | | |
| Grade 4 | 6,195.69 | 20 | 309.8 | 1 | 309.8 | | |
| Grade 5 | 6,273.33 | 29 | 216.3 | 1 | 216.3 | | |
| Grade 6 | 6,450.44 | 29 | 222.4 | 1 | 222.4 | | |
| Elementary Sub-Totals: | 44,264.81 | | 1730.3 | | 2015.8 | $24,744 | $49,879,022 |
| Planning Period Add On: | | | | | 201.6 | $24,744 | $4,987,902 |
| | | | | | Cost per Pupil: | | $1,240 |
| **7-8th Grade Subjects:** | | | | | | | |
| Life Science (Grade 7) | 5,066.00 | 30 | 168.9 | 6 | 28.1 | | |
| Earth Science (Grade 8) | 4,636.63 | 30 | 154.6 | 6 | 25.8 | | |
| Mathematics (Grade 7) | 5,368.25 | 30 | 178.9 | 6 | 29.8 | | |
| Mathematics (Grade 8) | 3,957.00 | 31 | 127.6 | 6 | 21.3 | | |
| English/Language Arts (Grade 7) | 4,694.38 | 30 | 156.5 | 6 | 26.1 | | |
| English/Language Arts (Grade 8) | 4,411.50 | 30 | 147.1 | 6 | 24.5 | | |
| Reading Improvement (Grade 7) | 623.88 | 30 | 20.8 | 6 | 3.5 | | |
| Reading Improvement (Grade 8) | 568.25 | 30 | 18.9 | 6 | 3.2 | | |
| Texas History and Geography (Grade 7) | 5,134.00 | 30 | 171.1 | 6 | 28.5 | | |
| U.S. History and Citizenship (Grade 8) | 4,717.38 | 30 | 157.2 | 6 | 26.2 | | |
| Computer Literacy (Grade 7-8) | 2,584.88 | 29 | 89.1 | 6 | 14.9 | | |
| Electives: | | | | | | | |
| Health (Grade 7-8) | 581.00 | 40 | 14.5 | 6 | 2.4 | | |
| P.E. (Grade 7-8) | 7,558.13 | 50 | 151.2 | 6 | 25.2 | | |
| Fine Arts (Grade 7-8) | 5,278.38 | 42 | 125.7 | 6 | 20.9 | | |
| Foreign Languages (Grade 7-8) | 895.75 | 30 | 29.9 | 6 | 5.0 | | |
| All Other Electives (Grade 7-8) | 4,753.13 | 30 | 158.4 | 6 | 26.4 | | |
| Junior High Sub-Totals: | 60,828.54 | | 1870.4 | | 311.7 | $25,776 | $8,035,441 |
| | | | | | Cost per Registration: | | $132 |
| | | | | | Cost per Pupil: | | $925 |

Group 5

## APPENDIX B
### Cost of Instructional Salaries

| High School Subjects: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| **Science** | | | | | | | |
| Introduction to Biology | 866.13 | 29 | 29.9 | 5 | 6.0 | | |
| Biology I | 4,106.63 | 31 | 132.5 | 5 | 26.5 | | |
| Chemistry I | 1,534.25 | 30 | 51.1 | 5 | 10.2 | | |
| Physics I | 370.50 | 29 | 12.8 | 5 | 2.6 | | |
| Physical Science | 4,006.50 | 31 | 129.2 | 5 | 25.8 | | |
| **Mathematics** | | | | | | | |
| Fundamentals of Mathematics | 704.13 | 30 | 23.5 | 5 | 4.7 | | |
| Consumer Mathematics | 929.25 | 31 | 30.0 | 5 | 6.0 | | |
| Pre-Algebra | 2,529.00 | 32 | 79.0 | 5 | 15.8 | | |
| Informal Geometry | 500.00 | 32 | 15.6 | 5 | 3.1 | | |
| Algebra I | 4,326.38 | 32 | 135.2 | 5 | 27.0 | | |
| Algebra II | 2,113.50 | 32 | 66.0 | 5 | 13.2 | | |
| Geometry | 2,374.75 | 32 | 74.2 | 5 | 14.8 | | |
| Trigonometry | 389.38 | 31 | 12.6 | 5 | 2.5 | | |
| Elementary Analysis | 1.50 | 12 | 0.1 | 5 | 0.0 | | |
| Analytic Geometry | 3.13 | 25 | 0.1 | 5 | 0.0 | | |
| Pre-Calculus | 223.00 | 33 | 6.8 | 5 | 1.4 | | |
| Mathematics of Consumer Economics | 454.75 | 34 | 13.4 | 5 | 2.7 | | |
| **English/Language Arts** | | | | | | | |
| English I | 4,086.25 | 31 | 131.8 | 5 | 26.4 | | |
| English II | 3,838.50 | 31 | 123.8 | 5 | 24.8 | | |
| English III | 3,399.13 | 31 | 109.6 | 5 | 21.9 | | |
| English IV | 2,106.25 | 32 | 65.8 | 5 | 13.2 | | |
| English IV Academic (Composition) | 544.00 | 31 | 17.5 | 5 | 3.5 | | |
| English IV Academic (British Lit.) | 44.50 | 27 | 1.6 | 5 | 0.3 | | |
| Correlated Language Arts I | 462.50 | 30 | 15.4 | 5 | 3.1 | | |
| Correlated Language Arts II | 331.50 | 29 | 11.4 | 5 | 2.3 | | |
| Correlated Language Arts III | 280.38 | 30 | 9.3 | 5 | 1.9 | | |
| Correlated Language Arts IV | 205.25 | 30 | 6.8 | 5 | 1.4 | | |
| **Social Studies** | | | | | | | |
| Economics w. Emphasis on Free Ent. | 1,340.00 | 33 | 40.6 | 5 | 8.1 | | |
| World Geography Studies | 1,726.38 | 32 | 53.9 | 5 | 10.8 | | |
| United States Government | 2,604.13 | 32 | 81.4 | 5 | 16.3 | | |
| United States History | 5,401.00 | 33 | 163.7 | 5 | 32.7 | | |
| World History Studies | 3,467.75 | 33 | 105.1 | 5 | 21.0 | | |

Group 5

# APPENDIX B
## Cost of Instructional Salaries

| Electives: | Average Registration | Selected Class Size | Estimated # Sections Needed | Average Teacher Load Sections/Tchr. | Estimated # Teachers (FTE's) Needed | Average Teacher Salary | Estimated Teacher Cost |
|---|---|---|---|---|---|---|---|
| Foreign Languages | | | | | | | |
| All Foreign Languages | 5,781.88 | 32 | 180.7 | 5 | 36.1 | | |
| Physical Education/Health | | | | | | | |
| Health Education | 2,320.38 | 35 | 66.3 | 5 | 13.3 | | |
| All Physical Education | 7,339.13 | 51 | 143.9 | 5 | 28.8 | | |
| Fine Arts | | | | | | | |
| All Fine Arts | 5,451.63 | 37 | 147.3 | 5 | 29.5 | | |
| All Other Electives | 27,952.26 | 31 | 901.7 | 5 | 180.3 | | |
| High School Sub-Totals: | 104,115.58 | | 3189.9 | | 638.0 | $25,776 | $16,444,762 |

Cost per Registration: $156

Cost per Pupil: $948

Total Weighted Average Cost Per Pupil For Instructional Salaries: $1,129

## APPENDIX C

October 29, 1987 Facilities Work Session
Panel Participants

APPENDIX C
October 29, 1987 Facilities Work Session
Panel Participants

Donald Burleson, Architect
Burleson & Associates
Irving, Texas

Mr. Burleson is an architect with 10 years experience in planning and designing rural schools. He is also the chairman-elect of the American Institute of Architects' committee on architecture and education.

Gene Chick, Associate Commissioner
Office of Educational Facilities
Tallahassee, Florida

Dr. Chick has worked with the National Governors' Association on a review of state facilities construction programs. The office for which he is responsible manages all of Florida's educational facilities from elementary school to higher education. They are responsible for all long-range facilities planning, maintaining a complete inventory of all buildings and managing all state financing for capital outlay.

Ben Graves, Vice President
Academy of Educational Development
Educational Facilities Laboratory
Austin, Texas

Dr. Graves has a great deal of experience in facilities planning and financing. He is also listed as a resource in the National Governors' Association Task Force on School Facilities Report.

Ernie Lehr, Director
Division of School Transportation and District Organization
California Department of Education
Sacramento, California

Dr. Lehr has spent 5 years directing California's $5 billion program which has involved construction and renovation of that state's school facilities. He has also dealt with the financing of facilities construction.

Lance Tatum, Architect
September Associates
Austin, Texas

Mr. Tatum has practiced architecture for more than 30 years, for the last 12 years he has also been a professor of architecture. During this time, Mr. Tatum has been involved in the planning and construction of school facilities. He also assisted the previous Accountable Costs Committee in developing their classroom costs model.



89

**F. P. Weaver, Assistant Superintendent**
Houston Independent School District
Houston, Texas

Mr. Weaver is responsible for overseeing the planning and construction of new school facilities in Houston. Under his supervision, HISD has developed an inventory of school facilities which is currently being automated.

Allen G. Weymouth, Architect
Cavitt McKnight Weymouth, Inc.
Houston, Texas

Mr. Weymouth is an architect from Houston who has been involved in the planning and construction of school facilities in Texas. He also provided information on size and cost estimates to the previous Accountable Costs Committee.

## APPENDIX D

Definitions of Variables Used
in the Study of School Facilities

Definitions were provided to the
Texas Education Agency
by the staff of the Texas School Services Foundation



91

## APPENDIX D
### Definitions of Variables Used in the Study of School Facilities

| | |
|---|---|
| Building Type: | Identifies the primary use of the space. Valid values include, but are not limited to: Auditorium, Cafeteria, Classroom, Gymnasium, Library, Single Portable, Double Portable. |
| Building Value: | The replacement value of the physical structure exclusive of the contents. Valid values are numeric and not less than zero. |
| Campus Number: | TEA assigned campus identifier. Valid values are 001 through 699. |
| Construction Age: | The construction age of the building. Valid values are numeric and not less than zero. |
| County District Number: | TEA assigned district identifier. Valid values are 001-699 through 254-699 |
| Construction Type: | Distinguishes different construction materials and assemblies. Valid values are: (1) Frame: structural components are wood, exterior walls are wood, stucco, veneer or siding. (2) Joisted Masonry: brick, stone or concrete construction. (3) Non-Combustible: pre-fabricated steel framing. (4) Masonry Non-Combustible: masonry over a non-combustible frame. (5) Fire-resistive: non-combustible construction with a fire resistance rating of not less than two hours. (6) Modified fire-resistive: non-combustible construction with a fire resistance rating of not less than one hour. |
| Contents Value: | Value of the building contents, including such items as desks, chairs, blackboards, lab equipment. Valid values are numeric and not less than zero. |
| Effective Age: | The effective age of the building based on original construction date and dates of renovations. Valid values are numeric and not less than zero. |
| Square Foot Cost: | Building value divided by total square feet. Valid values are numeric and not less than zero. |
| Square Feet: | Total square footage of the building. Valid values are numeric and not less than zero. |

# COMPLIANCE STATEMENT

## TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the [illegible] Order are applied.

## TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

TEXAS EDUCATION AGENCY
1701 NORTH CONGRESS AVENUE
AUSTIN, TEXAS 78701



FS9 742 01