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## 0378 Staff Report on the Senate Bill 93-87 Setting Category Study



[REDACTED]  
FEB 16 1994

# *COLORADO*

## *GENERAL ASSEMBLY*

Legislative Council  
Research Publication No. 378

**Legislative Council  
Staff Report on the  
Senate Bill 93-87  
Setting Category Study**

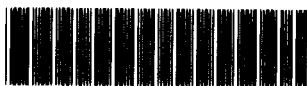
**August 1993**

**COLORADO LEGISLATIVE COUNCIL  
RECOMMENDATIONS**

**SENATE BILL 93-87  
SETTING CATEGORY STUDY**

**Legislative Council  
Report to the  
Colorado General Assembly**

**Research Publication No. 378  
August 1993**



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August 20, 1993

To Members of the Fifty-Ninth Colorado General Assembly:

Submitted herewith is the report of the study of setting categories for school districts required by section 22-53-105.5, C.R.S. The study of setting categories was begun following the enactment of House Bill 92-1344. A preliminary report was submitted to you in March 1993 in response to the study directives in that legislation. Senate Bill 93-87 was enacted to continue the analysis of the issues raised in the March report and to expand the scope of the original charge to include issues raised by section 20 of article X of the Colorado Constitution. This report presents the analyses and recommendations required of the Legislative Council staff by Senate Bill 93-87.

Very truly yours,

Charles S. Brown  
Director

CB/DG/bj

## ACKNOWLEDGMENTS

The Legislative Council staff again had the benefit of an advisory committee comprised of experts in school finance issues, all of whom gave of their time and energy to advise us in developing this report and the recommendations contained herein. The committee advised us on the selection and analysis of data elements, the use of various statistical techniques for data analysis, and the evaluation of the outcomes of the statistical analyses. We would like to thank the members of this panel for their continued assistance. The members of the advisory committee were:

Dr. John Augenblick, *Augenblick, Van De Water and Myers*

Dr. Richard King, *Professor of Education, University of Northern Colorado*

Dr. Ken Kirkland, *Executive Director of Business Services, Adams County School District 50*

Mr. Scott Murphy, *Director of Business Services, Littleton Public Schools*

Dr. F. Don Saul, *Superintendent, Thompson School District*

Dr. Dan Stewart, *Assistant Commissioner of Education, Colorado Department of Education*

Dr. Ed Steinbrecher, *Superintendent, Platte Canyon School District*

Finally, we would like to acknowledge the work of the members of the Legislative Council staff who contributed to the development of this report.

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## **EXECUTIVE SUMMARY**

House Bill 92-1344 directed the Legislative Council staff to conduct an analysis of the factors and characteristics used to establish setting categories in the Public School Finance Act of 1988 and to recommend changes if warranted. The staff was also directed to evaluate school district assignment to categories, to analyze additional funding sources available to school districts, and to examine the operating costs of school districts in each category. On March 1, 1993, the Legislative Council staff submitted an executive summary of its report to the General Assembly. A full report was published shortly thereafter.

Following the enactment of House Bill 92-1344, however, the electorate approved Amendment No. 1 (section 20 of article X of the Colorado Constitution) at the 1992 general election. This constitutional amendment limits increases in expenditures of the state and local taxing jurisdictions, including school districts, to inflation plus a growth factor. In addition, the amendment prohibits increases in tax rates for these government entities and imposes restrictions on the amount of property tax revenue that may be generated by local governments. Both the spending and tax rate limitations may be overridden by voter approval. Given the new limitations contained in the constitutional amendment, the consensus was that the setting categories and, in fact, the entire financing mechanism for public education, should be reviewed in the context of Amendment No. 1.

Consequently, Senate Bill 93-87 was introduced and enacted to expand the scope of the original charge to the Legislative Council. Because the constitutional amendment addresses total school district spending, including revenue which has traditionally been beyond the scope of the school finance act, the expanded study directive calls for an evaluation of how the criteria for setting categories would be impacted if other funding sources were taken into account. Senate Bill 93-87 also requires an evaluation of recommended procedures for modifying setting categories and for reassigning districts between categories consistent with the provisions of Amendment No. 1. In addition, the bill calls for further analysis of issues contained in the original study charge, including recommendations on issues such as the determination of funding component values, instructional unit funding ratios, and adjustments to such funding ratios to recognize the presence of "at-risk" pupils; the equalization of additional revenue available to school districts; and the collection of additional data that could be used to develop future school finance policy that is less reliant on wealth-based factors.



## **March 1 Study Recommendations**

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In brief, the March 1 setting category study report to the General Assembly included the following recommendations:

- school districts be grouped according to cost-of-living regions and funding components be established to reflect the cost of living in each of such regions;
- instructional unit funding ratios and at-risk factors be addressed in a manner that recognizes individual district variation and, to that end, instructional unit funding ratios be determined by the enrollment size of each district and modified to the extent that each district's enrollment is comprised of at-risk pupils;
- mechanisms be investigated to determine funding component values that reflect cost-of-living regions, enrollment-based instructional unit funding ratios, and a method for calibrating such ratios to account for at-risk factors;
- proxy data be found which emulate the census data but are available or can be collected on an annual basis, and additional data be gathered to augment and to improve the database available for further analysis;
- with regard to additional revenue available to school districts, the practical and theoretical issues pertaining to the equalization of additional revenue be researched and reported to the General Assembly; and
- further study of the Public School Finance Act of 1988 or any categorical program be considered in light of Amendment No. 1.

## **Study Approach and Methodology**

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The advisory committee of school finance experts that participated in the development of the March 1 report was reconvened to assist with the Senate Bill 87 study. The recommendations submitted to the General Assembly in the preliminary report, outlined above, were the basis for continuing the study. This approach was taken because any conclusions and recommendations relating to Amendment No. 1 issues contained in the study directive hinged, in large part, on the resolution of the structure of the financing mechanism. Of primary consideration was the resolving of issues related to data used to develop the recommendations in the March 1 report. As the report indicated, census data are available only once every ten years and, therefore, may be inappropriate for annual funding of Colorado schools. It was also recommended that additional data be gathered to improve that database. Several sources of additional data were identified,

collected, and analyzed to develop recommendations relating to cost-of-living differentials between school district labor pool areas, instructional unit funding ratios, and adjustments in funding to recognize the additional costs of providing educational services to at-risk youth.

*Cost of living.* The preliminary setting category report relied on the use of census data to measure cost-of-living differences among school districts. Four census data elements were the basis for developing economic regions based on cost of living: average household income, average housing values, average rent, and average ownership cost for owner-occupied property. In addition to the general concern regarding the use of data that are available only once every ten years, the March 1 report cited the lack of data on the costs of other goods and services as a cause of concern. Since the completion of the preliminary study, an additional concern has arisen over the use of economic data from the census: the indices for the cost of shelter may reflect significantly different housing characteristics – square footage and number of rooms, for example – in the various school districts. This lack of comparability may distort the cost-of-living differences observed in the preliminary report.

To address the concerns with the cost-of-living data used to develop the recommendations in the March 1 report, a contract was entered into with Runzheimer International to compute the cost of living in each school district. At least one community was surveyed in each of the 176 school districts while multiple surveys were conducted in large school districts with several economically important areas. The cost-of-living analysis conducted by Runzheimer was based on a constant market basket of housing, goods, and services in each community for both homeowners and renters. The market basket was defined by Runzheimer using an income level and household size provided by the Legislative Council staff. Homeowner costs include the mortgage costs of principal and interest, homeowner insurance, real estate taxes, utilities, and annual maintenance and repair. Renter costs include apartment or home rental, renter's insurance, and utility costs. Other elements surveyed include taxation, transportation costs, and other goods and services. Taxation includes federal and state income taxes and local sales taxes. The transportation category consists of the cost of owning and operating personal vehicles, including maintenance, gasoline and oil, licensing and registration, insurance, financing, and depreciation. Goods and services costs include food for home and away-from-home consumption, clothing, medical care, household furnishings and operations, recreation, and other day-to-day expenses.

In accordance with its contract, Runzheimer supplied the income level that would be necessary to purchase the market basket of housing, goods, and services in each of the school districts for homeowners and renters. Homeowner costs were provided for those currently purchasing a house, as well as for those with three- and six-year-old mortgages.

***School district labor pool areas.*** In the preliminary report, a "labor pool area" was established for each school district to identify the geographical area within which the instructional staff for each district reside. The original labor pool areas for each district were based upon zip code information and membership data provided by the Colorado Education Association (CEA) and supplemented by a survey of selected districts. Census economic data were used to compute cost-of-living figures for each school district based on the school district's labor pool area. A concern with the original computation was that the information on the residence of the instructional staff presented only a partial picture of school district employees. It was limited to the instructional staff, and then only the instructional staff encompassed by CEA's database or the Legislative Council supplemental survey.

To provide a more complete picture of each district's labor pool area, a survey was conducted of each school district. The response rate for the survey was 100 percent. School districts were asked to provide the zip code of residence of all personnel employed by the district. As a result of this survey, the database increased from the original 29,500 employees to 76,250 employees. The school district of residence of each of these employees was used to identify the labor pool area for the employing school district. The school district of residence was determined through zip code information. Using economic data, the cost of living for each school district, by school district labor pool area, was computed. Once available, the census economic data was replaced by the Runzheimer data for this calculation.

***Instructional unit funding ratios.*** The preliminary report identified the factors that had been examined to gauge the relationship between a given district's per pupil costs and its size. Of the factors examined, pupil-teacher ratios provided the best indication of the differences in per pupil costs encountered by school districts based on enrollment. A formula was developed to adjust the instructional unit funding ratio based on district enrollment using actual 1990 pupil-teacher ratios. The universe of teachers was defined as all classroom teachers excluding Chapter 1 teachers and special education teachers.

To verify the validity of the formula, the 1990 data were augmented with additional years' data. In addition to the 1990 information, data were examined for 1986, 1988, 1991, and 1992. The analysis of the data indicated that, while ratios had changed over time, the slope of the line used to determine the formula for adjusting ratios based on enrollment did not change markedly.

***At risk.*** In the preliminary phase of the setting category study, three data elements were derived from the census as proxies for the presence of at-risk youth. These data elements were: (1) the percentage of children age 5 to 17 living in poverty, (2) the percentage of persons age 18 and older without a high school diploma, and (3) the percentage of children age 5 to 17 who speak English "not well" or "not at all." These three elements were used to establish an "at-risk index" for each school district. The

recommendation submitted in the March 1 report was that "at-risk factors not be addressed through the use of categories, but rather through the mechanism of formula funding that recognizes individual district variation." However, the data included in the at-risk index raise several issues regarding its use as a mechanism for allocating revenue. Because the data are available only after the decennial census, gradual changes in the demographics of a district would not be recognized on an annual basis. In addition, census data elements used to derive the index were primarily sample data and subject to error, particularly in the smaller population districts. Further, while the index may measure an at-risk climate, it does not provide data on the student population of a school district.

In searching for a proxy for the at-risk index, several options were examined, including school district graduation rates, children who qualify for free or reduced lunches under the National School Lunch Act, and children from households receiving federal Aid to Dependent Children. The at-risk index was correlated with the variables listed above to determine each variable's feasibility as a proxy. Other states' statutes were also reviewed to determine what factors states use to identify their at-risk students and how these states allocate additional funds based on the presence of such students.

## **FINDINGS AND RECOMMENDATIONS**

### **Findings**

Based upon the objectives and conclusions discussed below as well as upon the analyses performed, the following conclusions were reached.

- Several objectives of a financing system for public education were identified. First, any new school finance system should be more equitable than the one currently in place. To achieve that goal, the act should respond to the real cost pressures faced by school districts. To the extent that differentials in cost of living result in different costs for the same educational services, these differentials should be recognized in allocating revenue to school districts. Second, the methodology for computing funding components should acknowledge expenditure patterns of school districts and provide for adequacy in funding. Finally, school districts should be held accountable for making effective use of the money available. Student achievement may be one way to measure accountability. Although no consistent data are collected statewide on student achievement in Colorado, continued refinement of the standards

and assessment legislation (House Bill 93-1313) could provide the data necessary should the General Assembly wish to tie financing to educational outcomes. House Bill 1313 currently requires that statewide assessments be administered on a stratified, random sampling basis in grades 4, 8, and 10. Schools are required to participate if selected for the statewide samples, but each school's participation is required only once every three years. The statewide assessments begin January 1, 1996, with the first reporting of results due January 1, 1997.

- While grouping districts into economic regions is certainly feasible, it appears the cost-of-living data provided by Runzheimer allow for each district to be assigned an individual cost-of-living factor based on its labor pool area, thereby negating the need for setting categories. The use of setting categories is beneficial in two instances: first, where districts are grouped by several variables; and second, where "best source data" are not available, groupings can protect districts from being negatively impacted by incomplete data. However, where best source data are authoritative and accurate, groups or clustering are not necessary. By incorporating the cost of goods and services other than housing and by using a constant market basket of housing, goods, and services in each of the state's 176 school districts, the Runzheimer data have resolved the concerns raised about the census data. Allocating funding by individual district cost-of-living indices also negates the underfunding and overfunding of districts that occur when districts are grouped and expenditures averaged to the midpoint of respective groups. The use of a cost-of-living survey similar to that provided by Runzheimer permits the updating of economic data on a more frequent basis than use of the census data would permit, and allows for funding changes consistent with the economic circumstances of a school district's labor pool area. With each district as its own economic region, funding for any given district would be determined independently of other districts. Under the current setting category approach, the perception is that a change in category for one district will affect the funding levels in the sending and receiving categories. An individual district cost-of-living factor may also result in more gradual changes in funding as the district economy changes than might occur under a category change. This may be beneficial in the future given Amendment No. 1 spending restrictions, as movement between categories may result in funding increases that cannot be spent.
- Generally, the phrase "at risk" refers to those students who have the potential to perform poorly in or to drop out of school prior to graduation. Consequently, one measure for directing resources to at-risk youth would be student achievement. Again, no consistent statewide method of measuring student achievement appears to be in place to provide such a measure, however. Graduation rates appear to be the only achievement data collected uniformly

statewide. A review of these rates by district over a three-year period revealed wide variances and no significant correlation with the at-risk index developed with the census data. Poverty measures, such as eligibility for free lunches or for free and reduced price lunch programs, Chapter 1 funding, or Aid to Dependent Children, are frequently employed by other states as a proxy for identifying at-risk students.

- Amendment No. 1 restricts the increases in spending of school districts from year to year. The General Assembly has several options regarding the allocation of revenue under a new formula given these spending limitations, including allocating revenue without considering the spending limitation and limiting increases in revenue to the percentage change specified in the amendment. Funding changes brought about by a new school finance act and the relation of these funding changes to the spending limits in Amendment No. 1 depend on many variables. These variables include the total funding made available for public education; the impact of policy decisions by the General Assembly in implementing a new school finance act, including the use of "phase-in" and "hold harmless" provisions; whether funding for additional programs will be rolled into the school finance act funding base (e.g., special education and transportation); and whether other local and federal sources of revenue will be included in the equalization program.

### **Recommendations**

On the basis of the study analyses, findings, and conclusions, the following recommendations are offered for consideration by the General Assembly.

- We recommend that setting categories not be used for economic regions and that each district be assigned its own cost-of-living index. Although the Runzheimer study provided school district cost-of-living data for both homeowners and renters, we recommend that the district cost-of-living index be based on homeowner costs. The use of the homeowner data element appears reasonable because approximately two out of each three Colorado residents live in owner-occupied housing units and because the homeowner and renter data series are very highly correlated. Further, it is recommended that a study, similar in nature to the Runzheimer study, be conducted every two or three years so that changes in economic circumstances affecting school districts and their labor pool areas can be taken into consideration in allocating revenue to public schools.
- We recommend that **instructional unit funding ratios** be determined annually on an individual district basis, and that enrollment be the determining factor

for a district's ratio. Further study of the mechanism outlined in the March 1 study confirmed the validity of the formula, which provides for increases in the funding ratio as enrollment increases. The formula is premised on a curve which was mathematically fit to points representing pupil-teacher ratios by enrollment size. After determining the specific points where the slope of the curve changes, new lines were fit and became the basis for determining expected pupil-teacher ratios. Clear changes in the shape of the curve were found at enrollment levels of 296.5; 1,660; 4,477; and 30,000. The instructional unit funding ratio formula is calibrated so that a continuum of ratios exists, eliminating any step changes when moving from one enrollment level to the next.

- As in the March 1 study, several methods of determining unit funding component values were examined. We are not yet comfortable with any of the mechanisms investigated and recommend that we continue analyzing additional methods and report our findings to the Interim Committee on School Finance.
- We recommend that data on children receiving free lunches under the National School Lunch Act be used as a proxy for at-risk youth. Of the data available on a school district basis, this data element correlated most highly with the at-risk index derived from census data, with a coefficient of .76. It is further recommended that additional funding for students participating in the free lunch program be phased out for districts with the lowest instructional unit funding ratios, based on the premise that these districts have class sizes small enough to provide needed services to at-risk youth. When correlating the at-risk index with the percentage of children receiving free lunch in just those districts with enrollments over 300, the coefficient increased to approximately .92.
- We recommend that school district funding be calculated using a unit funding amount that is adjusted on an individual district basis to recognize district cost of living; that funding be allocated to districts using instructional units derived from the instructional unit funding ratio formula; and that additional funding be allocated to districts based on children receiving free lunches. Funding adjustments could be made to include state categorical support programs or other sources of revenue if the General Assembly so desires.
- Since we do not recommend the use of setting categories, examination of how criteria for setting categories would be impacted if other funding sources were combined for school finance purposes is moot. However, given the all-encompassing nature of the Amendment No. 1 limitations, further consideration of including other sources of revenue in the school finance act may be warranted. The goals of programs for which additional funds are

provided may provide insight into whether inclusion in the school finance act is appropriate. We recommend that this issue be explored further with the Interim Committee on School Finance.

- No recommendations are submitted regarding procedures for modifying setting categories and for reassigning districts between categories consistent with the provisions of Amendment No. 1 because funding on an individual district basis, rather than setting categories, is recommended. It is likely, however, that the Amendment No. 1 spending limitations will be an issue with any school finance proposal and that consideration will need to be given to the constitutional limitations in a revenue allocation formula.
- A review of the additional revenue available to school districts in 1991 reveals that specific ownership tax receipts comprised 57.3 percent of local General Fund revenue available to school districts, excluding property taxes. This source of revenue is dependent on property taxes generated by the district relative to other taxing jurisdictions in the county. Given the relationship between property taxes and specific ownership taxes, and the equity issues raised by such a relationship, we recommend the General Assembly consider some method of equalizing specific ownership taxes. Options for such equalization could include remittance of the school district portion of the specific ownership tax to the state for distribution through the school finance act; use of specific ownership tax as part of the local contribution applied to the district's total program; or equalization of a specified dollar amount per pupil.

Of the remaining 42.7 percent of additional revenue available to school districts, 37 percent is considered "other" local revenue, the sources of which are unidentifiable. Further steps need to be taken to account for these revenue sources if the General Assembly wishes to consider these revenue sources in the school finance act.

- Public Law 81-874 revenue is federal revenue, the majority of which is not tied to any specific educational program. The revenue is provided to compensate school districts for loss of property value due to the presence of federal facilities and Native American reservations or the increase in educational services required because of students whose parents work or live on these federal installations. In 1991, 42 school districts received a total of \$8.9 million in unrestricted impact aid funds. Federal law permits the equalization of P.L. 81-874 revenue only after approval by the U.S. Department of Education. If the General Assembly is concerned about these revenues being a disequalizing influence on funding for public schools, we recommend that the General Assembly consider beginning the application process for equalization of federal Public Law 81-874 revenue.



# **INTRODUCTION**

House Bill 92-1344 directed the Legislative Council staff to conduct an analysis of the factors and characteristics used to establish setting categories in the Public School Finance Act of 1988 and to recommend changes if warranted. The staff was also directed to evaluate school district assignment to categories, to analyze additional funding sources available to school districts, and to examine the operating costs of school districts in each category. On March 1, 1993, the Legislative Council staff submitted an executive summary of its report to the General Assembly. A full report was published shortly thereafter.

Following the enactment of House Bill 92-1344, however, the electorate approved Amendment No. 1 (section 20 of article X of the Colorado Constitution) at the 1992 general election. This constitutional amendment limits increases in expenditures of the state and local taxing jurisdictions, including school districts, to inflation plus a growth factor. In addition, the amendment prohibits increases in tax rates for these governmental entities and imposes restrictions on the amount of property tax revenue that may be generated by local governments. Both the spending and tax rate limitations may be overridden by voter approval. Given the new limitations contained in the constitutional amendment, the consensus was that the setting categories and, in fact, the entire financing mechanism for public education, should be reviewed in the context of Amendment No. 1.

Consequently, Senate Bill 93-87 was introduced and enacted to expand the scope of the original charge to the staff of the Legislative Council.

## **Study Directive**

Section 22-53-105.5 (4), C.R.S., directs our office to submit recommendations in the following areas based on the analysis, findings, and conclusions contained in the preliminary report:

- the determination of funding component values which reflect cost-of-living regions and the determination of enrollment-based instructional unit funding ratios which can then be calibrated to recognize the extent to which a school district's enrollment is comprised of "at-risk" pupils;

- recommendations concerning the collection of additional data, including student mobility rates, fee and tuition revenue, percentage of student population comprised of special education students, and assessed value per pupil; and
- recommendations concerning the equalization of additional revenue available to school districts.

With respect to the interplay between section 20 of article X of the state constitution and the use of setting categories in funding school districts, section 22-53-105.5 (5) directs the Legislative Council staff to:

- consider how the criteria for setting categories would be impacted if the different funding sources for school districts were combined for purposes of the school finance act;
- consider the impact of including federal revenues received by school districts when determining the funding for public education in Colorado;
- recommend procedures for modifying setting categories and for reassigning districts between categories and for implementation of such modifications;
- recommend a method of establishing a base per pupil funding component and criteria that should be considered in setting such a component; and
- consider the impacts of categorical funds not fully reimbursed by the state.

There are two tasks contained in the study charge that we were unable to complete due to time constraints: the determination of funding component values and the submission of recommendations for a method of establishing a base per pupil funding component. We suggest that we continue working on these issues in tandem with the Interim Committee on School Finance.

### **Organization of Report**

The report is organized into five chapters to accommodate the statutory directive. Chapters I through III address issues contained in section 22-53-105.5 (4), C.R.S., while Chapters IV and V focus on the issues contained in section 22-53-105.5 (5), C.R.S..

Chapter I includes the portion of the study relating the continued evaluation of factors thought to impact school district costs. This chapter continues the analysis begun in the preliminary report on differences in the cost of living among school districts, the development of a mechanism to adjust for cost differences associated with enrollment

size, and the identification of a proxy for the presence of at-risk students. **Chapter II** contains options for the collection of additional data on fee and tuition revenue and student mobility. Recommendations relating to the equalization of additional revenue available to school districts are contained in **Chapter III**.

**Chapter IV** presents an overview of issues relating to Amendment No. 1 and the financing of public schools. This chapter does not specifically address the statutory charge because the need to do so was negated with the recommendations contained in Chapter I. Finally, **Chapter V** presents information on state funding of categorical programs. It was our perception that, although this topic was grouped with Amendment No. 1 issues, it was a separate topic requiring separate analysis.

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# CHAPTER I

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# **CCHAPTER I**

Chapter I addresses the portion of Senate Bill 93-87 that requires Legislative Council staff to make recommendations concerning the determination of funding component values which reflect cost-of-living regions and the determination of enrollment-based instructional unit funding ratios which can then be calibrated to recognize the extent to which a school district's enrollment is comprised of "at-risk" pupils. The focus of this facet of our study was the resolution of issues raised in the preliminary report relating to data.

Census information was the primary source of data for the recommendations in the preliminary report relating to economic regions and the identification of at-risk youth. Several concerns were expressed about the use of these data for establishing the parameters for the financing of schools. In addition, it was suggested that the data used to develop labor pool areas and the formula to compute instructional unit funding ratios be expanded and enhanced.

This chapter describes the work performed to improve the data base. Several sources of additional data were identified, collected, and analyzed to develop recommendations relating to cost-of-living differentials between school district labor pool areas, instruction unit funding ratios, and adjustments in funding to recognize the additional costs of providing educational services to at-risk youth. A discussion of the methods analyzed to determine funding component values is also included in this chapter.

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## **COST OF LIVING**

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As noted in the report of the preliminary study, school districts face cost pressures outside their control. One such cost pressure requires that districts pay their personnel salary levels which reflect the cost of living of the region in which the school district is located. Since the majority of school district expenditures are devoted to personnel costs, measuring the differences in cost of living among districts appears to capture differences in cost pressures that districts face. Measuring the differences in cost of living involved the following steps:

1. Determining the cost of living in each individual district;
2. Identifying each district's labor pool area; and

3. Combining the individual district data and the labor pool areas to determine weighted district cost-of-living averages.

This section addresses changes in the data used to measure the cost of living among school districts from those used in the preliminary study. It also describes a revised method of determining each district's labor pool area, which involved increasing the database used to define a labor pool area from instructional staff to all staff. Finally, a newly calculated cost-of-living index for each district is presented.

**Data enhancement.** The cost of living of an area is measured through various items such as housing, goods, and services. The preliminary setting category study relied on the use of 1990 census economic data to measure cost-of-living differences among school districts. During that study, four census data elements provided the basis for comparing costs of living: average annual household income, average housing values, average monthly rent for renter-occupied property, and average monthly ownership cost for owner-occupied property.

The March 1 report of the preliminary study cited concern over the use of census data for two reasons: 1) the data are updated and available only once every ten years, and 2) the census economic data only relate to housing costs. Since the completion of the preliminary study, an additional concern arose over the use of economic data from the census: the indices for the cost of shelter developed from the census data may reflect significantly different characteristics of available housing – square footage and number of rooms, for example – in the various school districts. This potential lack of comparable available property may distort the cost-of-living differences observed in the preliminary report.

For these reasons, a cost-of-living study was undertaken. The information provided by the study permitted an analysis by our office using living costs as measured in 1993, while the preliminary study used 1990 census information, to assess the differences in cost of living among districts. By incorporating the cost of goods and services other than housing and by using a constant market basket of housing, goods, and services in each of the state's 176 school districts, the Runzheimer data, described below, have resolved the concerns raised about the census data.

### **Cost-of-Living Study**

To address the concerns with the cost-of-living data used to develop the recommendations in the March 1 report, a contract was entered into with Runzheimer International to compute the current cost of living in each school district. Runzheimer surveyed at least one community in each of the state's 176 school districts and surveyed multiple communities in those districts which encompass several economically important areas. The study was conducted in June and July 1993.

The cost-of-living analysis conducted by Runzheimer was based on a constant market basket of housing, goods, and services in each community for both homeowners and renters. The market basket was defined by Runzheimer using income level and household size profiles provided by the Legislative Council staff. Two profiles were submitted -- one for homeowners and one for renters. The homeowner profile was a household of three, the average household size for homeowners in Colorado, with an annual income of \$33,500, while the renter profile included a household size of two, the average household size for renters in Colorado, with an annual income of \$21,500. The income level for homeowners was chosen to reflect the statewide average teacher salary; the income level for renters is representative of teacher salaries in the first several years in the profession. The locations for which living cost standards would be developed were provided by our staff. Following are summaries of the major cost areas developed by Runzheimer.

**Housing.** Runzheimer used the income and household size parameters provided by our office to develop standard housing characteristics. For homeowners, Runzheimer calculated that a household of three with an income of \$33,500 could afford an average home with 1,300 square feet, six rooms including three bedrooms and one and one-half bathrooms. The mortgage payments were based on a down payment of 20 percent of the value of the home, a 30-year mortgage, and the interest rate in effect at the time of the sale. For renters, Runzheimer calculated that a household of two with an income of \$21,500 could afford to rent an apartment with 900 square feet, four rooms, including two bedrooms and one bathroom.

The cost of owning or renting the standard housing profile was calculated for each school district. Homeowner costs include the mortgage costs of principal and interest, homeowner's insurance, real estate taxes, utilities, and annual maintenance and repair. Renter costs include apartment or home rental, renter's insurance, and utility costs. To estimate housing costs, the market value of the standard home was developed for each school district. The market values were based on actual comparable home sales and opinions of value for current purchases, three-year-old mortgages, and six-year-old mortgages.

Local real estate professionals provided actual recent home sales data in each location, including the sale price, home sale date, age of the home, number of bedrooms, number of baths, and square feet of living area. Similar to the process used in the home appraisal industry, Runzheimer used regression analysis to examine home sales in each community, where sufficient data were available, and to determine the specific impact of each of the characteristics listed above on the sale price. Resulting adjustment rates were used to adjust each home sale to conform to the profiled home. For example, if the proper adjustment for one bedroom was \$9,000, an individual home that sold with one more bedroom than the profiled home would have had \$9,000 deducted from the original sale price.

According to Runzheimer, the data were gathered in accordance with standards established by the Society of Real Estate Appraisers in order to ensure consistency in comparison despite physical differences in structures from one region to another. After the adjusted market values for each sale in the community file were calculated, the home sales requiring the least adjustments for conformity were selected and the adjusted sale prices of those homes were averaged to calculate the market value of the subject home in each community. In communities where few or no comparable home sales were available, Runzheimer used opinions of value supplied by agents, brokers, and assessors.

**Transportation.** The transportation category consists of the annual cost of owning and operating personal vehicles, including maintenance, gasoline and oil, licensing and registration, insurance, financing, and depreciation. The number and types of automobiles for both homeowners and renters was determined by the income and household size parameters. Annual distances driven were used to derive operating costs for each vehicle.

The homeowner household was estimated to own two cars -- a 1990 Chevrolet Lumina, driven approximately 12,000 miles annually; and a 1989 Chevrolet Cavalier, driven approximately 6,000 miles annually. The second automobile in the homeowner profile was assumed to be fully paid for and depreciated to a reasonable salvage value. Therefore, ongoing annual depreciation costs, financing costs, and collision insurance were not included in the expenses for this second automobile. The renter household was estimated to own one car -- a 1989 Ford Tempo GL, driven approximately 12,000 miles annually.

**Taxation.** The Runzheimer analysis includes annual federal and state income taxes as well as social security and incorporates all federal tax law changes effective in 1993. State and local sales taxes are included as a separate item. The tax calculations were based on the annual income and family size parameters and the current tax regulations and rates for the specific locations. In order to more accurately determine tax liabilities, the calculation was based on itemized deduction patterns for the location and profile as reported to the Internal Revenue Service. For purposes of this analysis, real estate taxation was included under housing costs.

**Goods and services and other expenses.** Goods and services costs include food for home and away-from-home consumption, clothing, medical care, household furnishings and operations, recreation, and other day-to-day expenses. A miscellaneous cost element is included in the other expenses category. It is an estimated amount, based on family size and income level, used for long-term savings, investments, charitable contributions, life insurance, etc.



Table 1

**School District Cost-of-Living Figures and Indices:  
District Averages and Weighted Labor Pool Averages**

		DISTRICT AVERAGES		LABOR POOL AVERAGES	
COUNTY	DISTRICT	CURRENT COST OF LIVING	CURRENT COST OF LIVING INDEX	WEIGHTED CURRENT COST OF LIVING	WEIGHTED CURRENT COST OF LIVING INDEX
ADAMS	MAPLETON	31,514	1.18	32,351	1.21
ADAMS	NORTHGLENN	32,288	1.21	32,504	1.21
ADAMS	COMMERCE CI	31,289	1.17	32,230	1.20
ADAMS	BRIGHTON	31,731	1.19	32,030	1.20
ADAMS	BENNETT	31,733	1.19	32,100	1.20
ADAMS	STRASBURG	31,589	1.18	31,928	1.19
ADAMS	WESTMINSTE	31,970	1.19	32,528	1.21
ALAMOSA	ALAMOSA	30,148	1.13	30,033	1.12
ALAMOSA	SANGRE DEC	28,476	1.06	29,317	1.09
ARAPAHOE	ENGLEWOOD	32,579	1.22	32,912	1.23
ARAPAHOE	SHERIDAN	33,374	1.25	32,874	1.23
ARAPAHOE	CHERRY CRE	34,313	1.28	33,409	1.25
ARAPAHOE	LITTLETON	32,477	1.21	32,770	1.22
ARAPAHOE	DEER TRAIL	32,054	1.20	32,013	1.20
ARAPAHOE	AURORA	32,434	1.21	33,028	1.23
ARAPAHOE	BYERS	31,094	1.16	32,098	1.20
ARCHULETA	ARCHULETA	31,120	1.16	31,124	1.16
BACA	WALSH	28,639	1.07	28,609	1.07
BACA	PRITCHETT	28,463	1.06	28,502	1.06
BACA	SPRINGFIELD	28,663	1.07	28,660	1.07
BACA	VILAS	28,583	1.07	28,591	1.07
BACA	CAMPO	28,509	1.07	28,549	1.07
BENT	LAS ANIMAS	28,320	1.06	28,489	1.06
BENT	MCCLAVE	27,503	1.03	27,945	1.04
BOULDER	ST VRAIN	32,747	1.22	32,676	1.22
BOULDER	BOULDER	33,613	1.26	33,405	1.25
CHAFFEE	BUENA VISTA	31,148	1.16	31,116	1.16
CHAFFEE	SALIDA	30,552	1.14	30,491	1.14
CHEYENNE	KIT CARSON	27,956	1.04	28,201	1.05
CHEYENNE	CHEYENNE R-	29,898	1.12	29,821	1.11
CLEAR CREEK	CLEAR CREEK	31,888	1.19	32,166	1.20
CONEJOS	NORTH CONE	29,211	1.09	29,460	1.10
CONEJOS	SANFORD	29,013	1.08	29,200	1.09
CONEJOS	SOUTH CONE	29,502	1.10	29,451	1.10
COSTILLA	CENTENNIAL	28,398	1.06	28,801	1.08
COSTILLA	SIERRA GRAN	28,763	1.07	29,189	1.09
CROWLEY	CROWLEY	29,307	1.10	29,505	1.10
CUSTER	WESTCLIFFE	30,337	1.13	30,325	1.13
DELTA	DELTA	31,540	1.18	31,569	1.18
DENVER	DENVER	33,070	1.24	32,984	1.23
DOLORES	DOLORES	30,615	1.14	30,652	1.14
DOUGLAS	DOUGLAS	32,849	1.23	32,939	1.23
EAGLE	EAGLE	34,783	1.30	34,736	1.30
ELBERT	ELIZABETH	33,086	1.24	32,944	1.23
ELBERT	KIOWA	31,883	1.19	32,075	1.20
ELBERT	BIG SANDY	32,198	1.20	32,002	1.20
ELBERT	ELBERT	31,338	1.17	31,981	1.18

Table 1

**School District Cost-of-Living Figures and Indices:  
District Averages and Weighted Labor Pool Averages**

		DISTRICT AVERAGES		LABOR POOL AVERAGES	
COUNTY	DISTRICT	CURRENT COST OF LIVING	CURRENT COST OF LIVING INDEX	WEIGHTED CURRENT COST OF LIVING	WEIGHTED CURRENT COST OF LIVING INDEX
ELBERT	AGATE	30,834	1.15	31,209	1.17
EL PASO	CALHAN	32,119	1.20	31,707	1.18
EL PASO	HARRISON	31,631	1.18	31,688	1.18
EL PASO	WIDEFIELD	30,323	1.13	31,093	1.16
EL PASO	FOUNTAIN	30,685	1.15	31,154	1.16
EL PASO	COLORADO S	31,781	1.19	31,835	1.19
EL PASO	CHEYENNE M	31,659	1.18	31,716	1.18
EL PASO	MANITOU SPR	32,028	1.20	31,841	1.19
EL PASO	ACADEMY	32,686	1.22	32,202	1.20
EL PASO	ELLCOTT	31,008	1.16	31,430	1.17
EL PASO	PEYTON	31,856	1.19	31,899	1.19
EL PASO	HANOVER	30,747	1.15	30,962	1.16
EL PASO	LEWIS-PALME	32,357	1.21	32,313	1.21
EL PASO	FALCON	32,019	1.20	31,947	1.19
EL PASO	EDISON	30,640	1.14	30,788	1.15
EL PASO	MIAMI-YODER	30,130	1.13	30,735	1.15
FREMONT	CANON CITY	30,580	1.14	30,510	1.14
FREMONT	FLORENCE	29,608	1.11	30,025	1.12
FREMONT	COTOPAXI	29,428	1.10	29,751	1.11
GARFIELD	ROARING FOR	33,755	1.26	34,299	1.28
GARFIELD	RIFLE	31,461	1.18	31,633	1.18
GARFIELD	PARACHUTE	32,225	1.20	31,871	1.19
GILPIN	GILPIN	32,773	1.22	32,798	1.22
GRAND	WEST GRAND	32,660	1.22	32,687	1.22
GRAND	EAST GRAND	31,320	1.17	31,335	1.17
GUNNISON	GUNNISON	32,068	1.20	32,068	1.20
HINSDALE	HINSDALE	31,845	1.19	31,875	1.19
HUERFANO	HUERFANO	28,349	1.06	28,545	1.07
HUERFANO	LA VETA	28,040	1.05	28,108	1.05
JACKSON	NORTH PARK	30,823	1.15	30,823	1.15
JEFFERSON	JEFFERSON	32,736	1.22	32,763	1.22
KIOWA	EADS	27,992	1.05	28,072	1.05
KIOWA	PLAINVIEW	27,644	1.03	27,640	1.03
KIT CARSON	ARRIBA-FLAG	28,293	1.06	28,318	1.06
KIT CARSON	HI PLAINS	27,044	1.01	27,318	1.02
KIT CARSON	STRATTON	28,313	1.06	28,464	1.06
KIT CARSON	BETHUNE	27,999	1.05	28,430	1.06
KIT CARSON	BURLINGTON	28,391	1.06	28,377	1.06
LAKE	LAKE	31,213	1.17	31,233	1.17
LA PLATA	DURANGO	33,082	1.24	33,026	1.23
LA PLATA	BAYFIELD	32,430	1.21	32,536	1.22
LA PLATA	IGNACIO	32,014	1.20	32,277	1.21
LARIMER	POUDRE	31,292	1.17	31,297	1.17
LARIMER	THOMPSON	31,163	1.16	31,230	1.17
LARIMER	ESTES PRK	32,484	1.21	32,435	1.21
LAS ANIMAS	TRINIDAD	31,177	1.16	30,675	1.15
LAS ANIMAS	PRIMERO	27,140	1.01	29,391	1.10

Table 1

**School District Cost-of-Living Figures and Indices:  
District Averages and Weighted Labor Pool Averages**

DISTRICT AVERAGES				LABOR POOL AVERAGES	
COUNTY	DISTRICT	CURRENT COST OF LIVING	CURRENT COST OF LIVING INDEX	WEIGHTED CURRENT COST OF LIVING	WEIGHTED CURRENT COST OF LIVING INDEX
LAS ANIMAS	HOEHNE	27,170	1.02	29,710	1.11
LAS ANIMAS	AGUILAR	27,448	1.03	28,288	1.06
LAS ANIMAS	BRANSON	26,775	1.00	26,775	1.00
LAS ANIMAS	KIM	26,784	1.00	26,878	1.00
LINCOLN	GENOA-HUG	29,466	1.10	29,545	1.10
LINCOLN	LIMON	30,145	1.13	30,285	1.13
LINCOLN	KARVAL	28,326	1.06	28,751	1.07
LOGAN	VALLEY	30,841	1.15	30,799	1.15
LOGAN	FRENCHMAN	30,253	1.13	29,837	1.11
LOGAN	BUFFALO	30,296	1.13	30,555	1.14
LOGAN	PLATEAU	30,092	1.12	30,099	1.12
MESA	DEBEQUE	29,411	1.10	29,718	1.11
MESA	PLATEAU	30,086	1.12	30,078	1.12
MESA	MESA VALLEY	30,099	1.12	30,107	1.12
MINERAL	CREEDE	30,847	1.15	30,710	1.15
MOFFAT	MOFFAT	29,915	1.12	29,912	1.12
MONTEZUMA	MONTEZUMA	30,149	1.13	30,177	1.13
MONTEZUMA	DOLORES	30,383	1.14	30,328	1.13
MONTEZUMA	MANCOS	29,559	1.10	30,161	1.13
MONTROSE	MONTROSE	32,352	1.21	32,353	1.21
MONTROSE	WEST END	31,714	1.18	31,774	1.19
MORGAN	BRUSH	31,381	1.17	31,368	1.17
MORGAN	FT MORGAN	31,674	1.18	31,618	1.18
MORGAN	WELDON	30,514	1.14	31,122	1.16
MORGAN	WIGGINS	30,997	1.16	31,133	1.16
OTERO	EAST OTERO	30,375	1.13	30,210	1.13
OTERO	ROCKY FORD	30,116	1.13	30,092	1.12
OTERO	MANZANOLA	29,652	1.11	29,798	1.11
OTERO	FOWLER	29,760	1.11	29,811	1.11
OTERO	CHERAW	29,474	1.10	29,845	1.11
OTERO	SWINK	29,874	1.12	30,046	1.12
OURAY	OURAY	34,501	1.29	34,476	1.29
OURAY	RIDGWAY	34,220	1.28	33,851	1.26
PARK	PLATTE CANY	32,519	1.22	32,608	1.22
PARK	PARK	32,199	1.20	32,042	1.20
PHILLIPS	HOLYOKE	29,506	1.10	29,507	1.10
PHILLIPS	HAXTUN	28,065	1.05	28,337	1.06
PITKIN	ASPEN	48,461	1.81	43,206	1.61
PROWERS	GRANADA	27,449	1.03	28,355	1.06
PROWERS	LAMAR	29,955	1.12	29,867	1.12
PROWERS	HOLLY	27,488	1.03	27,485	1.03
PROWERS	WILEY	27,510	1.03	28,452	1.06
PUEBLO	PUEBLO CITY	31,031	1.16	30,988	1.16
PUEBLO	PUEBLO RURA	30,649	1.15	30,827	1.15
RIO BLANCO	MEEKER	29,721	1.11	29,721	1.11
RIO BLANCO	RANGELY	29,017	1.08	29,053	1.09
RIO GRANDE	DEL NORTE	29,761	1.11	29,722	1.11

Table 1

**School District Cost-of-Living Figures and Indices:  
District Averages and Weighted Labor Pool Averages**

		DISTRICT AVERAGES		LABOR POOL AVERAGES	
COUNTY	DISTRICT	CURRENT COST OF LIVING	CURRENT COST OF LIVING INDEX	WEIGHTED CURRENT COST OF LIVING	WEIGHTED CURRENT COST OF LIVING INDEX
RIO GRANDE	MONTE VISTA	29,835	1.11	29,779	1.11
RIO GRANDE	SARGENT	29,217	1.09	29,557	1.10
ROUTT	HAYDEN	33,166	1.24	32,765	1.22
ROUTT	STEAMBOAT S	33,320	1.24	33,300	1.24
ROUTT	SOUTH ROUT	32,697	1.22	32,845	1.23
SAGUACHE	MTN VALLEY	28,444	1.06	28,717	1.07
SAGUACHE	MOFFAT	29,361	1.10	29,223	1.09
SAGUACHE	CENTER	27,731	1.04	28,887	1.08
SAN JUAN	SILVERTON	30,916	1.16	30,916	1.15
SAN MIGUEL	TELLURIDE	43,080	1.61	41,724	1.56
SAN MIGUEL	NORWOOD	32,413	1.21	32,407	1.21
SEDGWICK	JULESBURG	29,566	1.10	29,517	1.10
SEDGWICK	PLATTE VLY	29,053	1.09	29,177	1.09
SUMMIT	SUMMIT	34,793	1.30	34,727	1.30
TELLER	CRIPPLE CRE	29,997	1.12	30,298	1.13
TELLER	WOODLAND P	31,410	1.17	31,497	1.18
WASHINGTON	AKRON	30,114	1.13	30,196	1.13
WASHINGTON	ARICKAREE	28,620	1.07	29,333	1.10
WASHINGTON	OTIS	29,922	1.12	30,114	1.12
WASHINGTON	LONE STAR	28,197	1.05	30,361	1.13
WASHINGTON	WOODLIN	28,380	1.06	29,261	1.09
WELD	GILCREST	30,958	1.16	31,209	1.17
WELD	EATON	30,775	1.15	30,951	1.16
WELD	KEENESBURG	31,003	1.16	31,248	1.17
WELD	WINDSOR	31,119	1.16	31,165	1.16
WELD	JOHNSTOWN	30,807	1.15	31,086	1.16
WELD	GREELEY	31,300	1.17	31,274	1.17
WELD	PLATTE VLY	30,677	1.15	31,013	1.16
WELD	FORT LUPTON	31,384	1.17	31,813	1.19
WELD	AULT-HGHLN	30,724	1.15	30,931	1.16
WELD	BRIGGSDALE	29,893	1.12	30,290	1.13
WELD	PRAIRIE	30,133	1.13	30,341	1.13
WELD	GROVER	30,297	1.13	30,318	1.13
YUMA	WEST YUMA	31,951	1.19	31,644	1.18
YUMA	EAST YUMA	30,131	1.13	30,202	1.13

***Runzheimer findings.*** In accordance with its contract, Runzheimer supplied the income level that would be necessary to purchase the market basket of housing, goods, and services in each of the school districts for homeowners and renters. The results of the Runzheimer analysis are found in Table 1. The homeowner and renter data were found to have a correlation factor of 0.8615. For this reason, as well as the fact that roughly 63.8 percent of households in the state are owner-occupied, it was concluded that only homeowner data would be necessary for cost-of-living comparison purposes. Limiting our analysis to a single index reflecting cost-of-living differences also made comparisons simpler. Using the procedure developed in the preliminary study, individual district data were converted to reflect the labor pool from which each district draws employees, as described below.

### **School District Labor Pool Areas**

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As noted previously, the cost of living in a given region requires that school districts provide salary levels that, first, attract qualified personnel and, second, allow personnel to reside within the community surrounding the district. A district's community, or labor pool area, often extends beyond the district's geographic boundaries as employees sometimes live within the boundaries of one district and work in another. Thus, in order to determine differences in the cost of living among school districts, it was necessary to identify each district's labor pool area.

***School district labor pool areas.*** In the preliminary report, a "labor pool area" was established for each school district to identify the geographic area within which the instructional staff for each district reside. The original labor pool areas for each district were based upon zip code information and membership data provided by the Colorado Education Association (CEA) and supplemented by a survey of selected districts. There was concern that the original computation presented only a partial picture of school district employees. It was limited to the instructional staff, and then only the instructional staff encompassed by CEA's database or the Legislative Council staff supplemental survey.

To provide a more complete picture of each district's labor pool area, a survey was conducted of each school district. The survey, to which all districts responded, asked for the zip code of residence of all personnel employed by the district. Survey results increased the database used to determine labor pool areas from the original 29,500 employees to 76,250 employees.

The employees' school district of residence determined by zip code was used to identify the labor pool area for the employing school district. By dividing the number of employees living in each district of residence by the total number of employees working in a given district of employment, the relative weight of each district of residence to the district of employment was determined for each school district. In many instances, zip

code boundaries encompassed more than one school district. In these cases, the percentage of employees attributable to each district was allocated in the same proportion as the total population of the zip code. Employees associated with zip codes located outside the state or unknown zip codes were excluded from the analysis.

After deriving the relative weight of each school district of residence attributable to a given school district of employment, the cost of living associated with each district of residence was applied to the relative weights. For example, if 50 percent of a given district's employees lived in district X, 30 percent lived in district Y, and 20 percent lived in district Z, the cost of living of each of those three districts would be multiplied the percentages, or relative weights, respectively. The resulting weighted averages would be summed to provide 100 percent of the given district's cost of living. Table 2 provides an example of the methodology used to calculate the weighted average cost-of-living index for the Park-Platte Canyon school district.

**Table 2**  
**Calculation of Weighted Average Cost of Living**  
**Park-Platte Canyon Labor Pool Area**

<b>District of Residence</b>	<b>Percentage of Total District Employees</b>	<b>Avg. Cost of Living (Base = \$33,500)</b>	<b>Percent Employees Times Average Cost of Living</b>
Park-Platte Canyon	62.76%	\$32,519	\$20,409
Jefferson	30.51	\$32,736	\$9,988
Denver	3.11	\$33,070	\$1,028
Arapahoe - Littleton	2.05	\$32,477	\$666
Douglas	0.62	\$32,849	\$204
Arapahoe - Cherry Creek	0.40	\$34,313	\$137
Clear Creek	0.40	\$31,888	\$128
Arapahoe - Aurora	0.16	\$32,434	\$52
Weighted Average Cost of Living	100.0%	NA	\$32,611

NA: Not applicable

The methodology described above was applied to all 176 school districts. Table 1 details each district's individual cost-of-living value and index, as well as the weighted average cost-of-living value and index for each district's labor pool area.

## **Recommendations and Issues for Consideration**

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The preliminary study proposed that weighted average cost-of-living indices be clustered or grouped into economic regions, similar to setting categories. While grouping districts into economic regions is certainly feasible, it appears the cost-of-living data provided by Runzheimer allow for each district to be assigned an individual cost-of-living factor based on its labor pool area, thereby negating the need for setting categories. Allocating funding by individual district cost-of-living indices also eliminates the underfunding and overfunding of districts that may occur when districts are grouped and expenditures averaged to the midpoint of respective groups.

In general, the use of setting categories is beneficial in two instances: first, where districts are grouped by several variables, clustering allows all variables to be taken into account simultaneously; and second, where precise and accurate data are not available, groupings can protect districts from being negatively impacted by incomplete data. The Runzheimer data appear to have resolved data concerns in both instances: first, by incorporating all living costs (housing, goods, and services) into a single cost-of-living index; and second, by using the current cost of a constant market basket of housing, goods, and services in each of the state's 176 school districts.

The use of a cost-of-living survey similar to that provided by Runzheimer permits the updating of economic data on a more frequent basis than use of the census data would permit, and allows for funding changes consistent with the economic circumstances of a school district's labor pool area. With each district as its own economic region, funding for any given district would be determined independently of other districts, consistent with the use of individual district enrollment and student characteristic (at-risk) data. Under the current setting category approach, a change in category for one district may affect the funding levels in both the sending and receiving categories. An individual district cost-of-living factor may also result in more gradual changes in funding as the district economy changes than might occur under a category change. This may be beneficial in the future given Amendment No. 1 spending restrictions, as movement between categories may result in funding increases that cannot be spent without voter approval.

*We recommend that cost-of-living factors not be addressed through the use of categories, but rather through the mechanism of formula funding that recognizes individual district variation. Further, we recommend that the cost of living in each school district be examined periodically in order to update the cost-of-living indices.*

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## ENROLLMENT

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As described in the preliminary report, providing educational services involves certain fixed costs which are unrelated to minor changes in the number of students served. This analysis and the original study compared school district enrollment to several factors related to per pupil costs. In both cases, pupil-teacher ratios appeared to provide the best indication of the differences in per pupil costs encountered by school districts based on enrollment. This analysis concurs with the preliminary study recommendation that pupil-teacher ratios based on each district's actual enrollment, rather than setting categories, be used to meet the needs created by diseconomies of size.

During the initial study, a proposed formula was developed in which actual enrollment data provided a basis for determining expected pupil-teacher ratios, or instructional unit funding ratios. The formula was designed so that each district's enrollment would drive a particular ratio. This analysis tests the proposed formula for providing an enrollment-based funding factor.

### **Expected Pupil-Teacher Ratios**

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Expected pupil-teacher ratios are ratios derived from a statistical analysis of historical enrollment data and pupil-teacher ratios. The formula for deriving expected pupil-teacher ratios, first proposed in the preliminary study, is based on actual 1990 pupil-teacher ratios and actual 1990 enrollment. Using the graph of 1990 pupil-teacher ratios and enrollment, a formula was developed to calculate an expected pupil-teacher ratio for any level of enrollment, thereby compensating districts based on size by adjusting ratios in such a way as to avoid step changes, or dramatic changes following minor changes in enrollment. The formula was developed by graphing pupil-teacher ratios by enrollment for all school districts. Through statistical analysis, a lowess line, or curve, was mathematically fit to the points. The curve was magnified to find the enrollment points where the slope of the curve, or the ratios, changed most dramatically. Clear changes in the shape of the curve were found at enrollment levels of 296.5; 1,660; 4,477; and 30,000.

After determining the specific points where the slope of the curve changed, straight lines were fitted to the pupil-teacher ratios of districts with enrollments between the breakpoints (enrollment levels of 0; 296.5; 1,660; 4,477; and 30,000). The new fitted lines became the basis for determining expected pupil-teacher ratios. For example, a straight line was fitted to the 1990 pupil-teacher ratios of the 55 districts with 1990 enrollments between 0 and 296.5 pupils. The expected ratios for this particular enrollment group range from 5.86 pupils per teacher (theoretically at 0 students) to 14.20 pupils per teacher for a district with enrollment of 296.5.



Similarly, a straight line was fitted to the 1990 pupil-teacher ratios of districts within the other enrollment groupings. The line fitted to the pupil-teacher ratios of districts with enrollments between 296.5 and 1,660 produces expected pupil-teacher ratios between 14.20 and 18.59. The line fitted to the pupil-teacher ratios of districts with enrollments between 1,660 and 4,477 produces expected pupil-teacher ratios between 18.59 and 20.06. The line fitted to the pupil-teacher ratios of districts with enrollments between 4,477 and 30,000 produces expected pupil-teacher ratios between 20.06 and 20.33. The two districts with enrollments above 30,000 did not constitute an adequate sample so districts in that category were assigned the maximum expected pupil-teacher ratio of the 4,477 to 30,000 enrollment grouping, or 20.33.

The lines drawn from each of the enrollment groupings were smoothed so that a continuum of expected pupil-teacher ratios existed, eliminating any step changes when moving from one enrollment level to the next. An average of endpoints was used in the two cases where the best-fit lines did not meet at exactly the same point, resulting in a shift of 0.08 pupils per teacher at an enrollment of 296.5 and a shift of 0.01 pupils per teacher at an enrollment of 1,660. When combined, the formulas for the four fitted lines and the fixed ratio for districts with enrollments over 30,000 allow for calculation of an expected pupil-teacher ratio at any given level of enrollment.

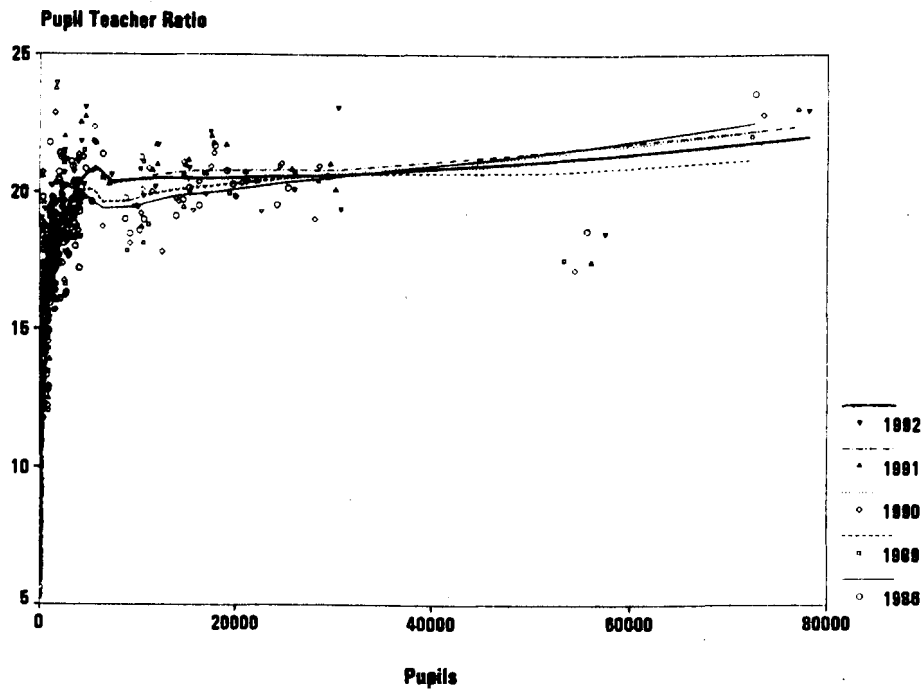
### **Data Enhancement**

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The analysis performed during the preliminary study suggested that additional years' data be examined to verify the validity of the formula. Therefore, the 1990 data were augmented with pupil-teacher ratios and enrollments for 1986, 1988, 1991, and 1992. Note that throughout this analysis, teachers were defined as all classroom teachers excluding chapter 1 and 2 teachers and special education teachers. Graph 1 plots each school district's pupil-teacher ratio and enrollment for the years listed above. Graph 1 also provides a line which was mathematically fitted to the points for each year. Analysis of the data indicated that, while ratios had changed over time, the slope of the line used to determine the formula for adjusting ratios based on enrollment did not change markedly.

The use of a moving average and a combination of several years' data in the development of a formula to compensate districts based on enrollment were also examined. Again, the shape of the lowess line in each of these alternatives did not significantly differ from the line found for the 1990 data. It was concluded, after examining the similarities in the different year's curves, that there was no need to modify the formula originally proposed.

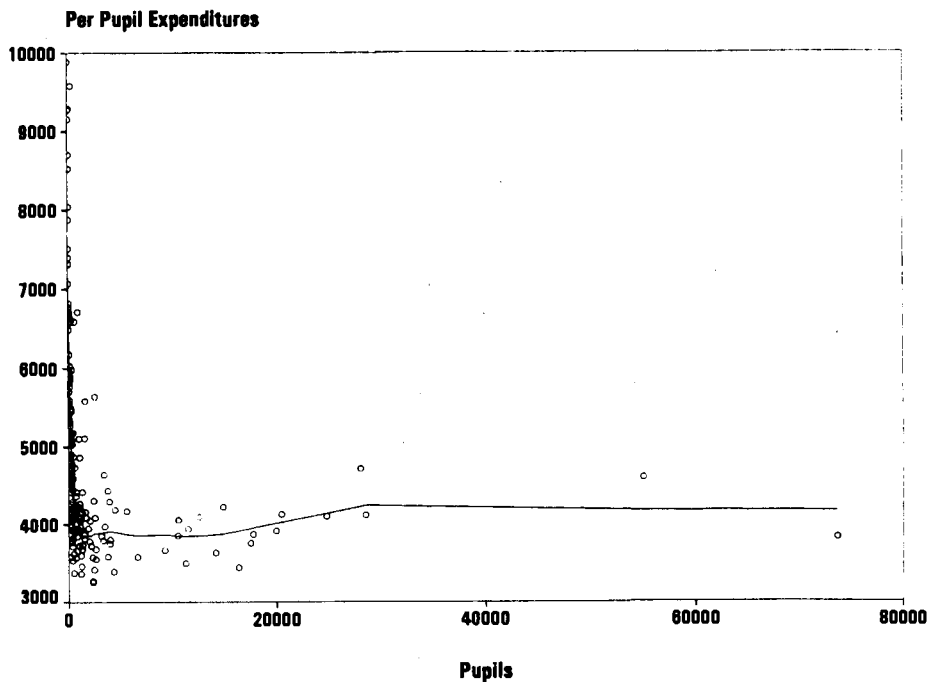
**Graph 1**  
**PUPIL TEACHER RATIOS BY ENROLLMENT**



### **Per Pupil Enrollment Adjustments**

In the course of examining alternatives, the concept of a formula which adjusts for enrollment on a per pupil basis was discussed. In response to these discussions, a formula was developed to provide a per pupil dollar adjustment based on enrollment and historical expenditures. Per pupil expenditures for 1991 were compared with 1991 school district enrollment and were found to have a correlation coefficient of -0.6489. When the two variables were plotted on a graph, a significant trend was noticed. Smaller enrollment districts were generally found to have higher per pupil expenditures and larger enrollment districts were generally found to have lower per pupil expenditures. Graph 2 shows 1991 per pupil expenditures by enrollment with a corresponding lowess line.

**Graph 2**  
**PER PUPIL EXPENDITURES BY ENROLLMENT 1991**



As in the analysis of pupil-teacher ratios, the lowess line was magnified to determine the points where clear breaks in the curve occurred. These points were found at enrollment levels of 264; 453.5; 2,666; 6,682.5; 14,945.5; and 28,604.5. A formula was created based on the straight lines drawn from the data points found between the enrollment breakpoints. The formula provides for estimated compensation to districts based on enrollment without step changes, or dramatic changes, as a result of minor changes in enrollment.

Although both the per unit (ratio) and per pupil formulas provide funding adjustments to districts based on enrollment, the per unit formula adjustment occurs because of the interaction between the unit funding component value and the ratio, while the per pupil formula provides a specific dollar amount within the general funding formula. Throughout this and the preliminary study, our analysis focused on meshing any new proposals with concepts defined and utilized in the current school finance act. The use of unit funding was one component of the current act which was deemed workable and understandable. In addition, the use of instructional units mirrors the current educational delivery system. Therefore, the analysis of the per pupil enrollment adjustment option was discontinued in favor of focusing on the per unit option. However, both adjustment formulas remain viable alternatives, depending on the objectives of the General Assembly.

## **Recommendations and Issues for Consideration**

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The formula and methodology for deriving expected pupil-teacher ratios described above provides compensation for class size differences based on historical pupil-teacher ratios in an attempt to compensate school districts for cost pressures resulting from the number of pupils enrolled. In addition, the proposal compensates districts by adjusting ratios in such a way as to avoid step changes, or dramatic changes in funding based on minor changes in enrollment. Options exist for limiting the range of expected pupil-teacher ratios, either at the low end or at the high end. For example, this analysis sets a limit on the maximum expected pupil-teacher ratio because not enough data exist to determine the true expected pupil-teacher ratio at enrollments over 30,000. The maximum pupil-teacher ratio in this analysis could be capped at a lower level. Similarly, a minimum expected pupil-teacher ratio could be set to reduce any disincentives for school district consolidation that may exist.

*As before, we believe that establishing pupil-teacher ratios based on enrollment, rather than through the use of setting categories, best meets the needs created by diseconomies of size.*

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## **AT-RISK**

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This section addresses issues surrounding the presence of at-risk students, defined as those students who have the potential to perform poorly in or to drop out of school prior to graduation, and the additional needs created by those students. First, it reviews the findings of the preliminary study. Second, a discussion of the possibility for linking at-risk funding to student achievement is described. Third, alternatives for addressing at-risk students utilized by other states are presented. Fourth, the various methods used to determine the number of at-risk students in Colorado schools are described. Fifth, alternative mechanisms to adjust district funding to compensate for the presence of at-risk students are briefly discussed. Finally, recommendations and issues for consideration are presented.

## **Findings of the Preliminary Study and Study Approach**

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Current literature provides numerous suggestions for variables which may indicate students at risk of failing in school or dropping out altogether. The statute creating the original school district setting category study directed our office to consider specified data relating to at-risk characteristics: levels of income, the number of single parent households, the dominant language spoken in households, the level of educational

attainment of parents, and eligibility for free and reduced price lunches. As a result of analysis of the data in the study directive, three data elements were derived from the census as proxies for the presence of at-risk youth. These data elements were: (1) the percentage of children age 5 to 17 living in poverty, (2) the percentage of persons age 18 and older without a high school diploma, and (3) the percentage of children age 5 to 17 who speak English "not well" or "not at all." These three elements were used to establish an "at-risk index" for each school district.

The recommendation submitted in the March 1 report was that "at-risk factors not be addressed through the use of categories, but rather through the mechanism of formula funding that recognizes individual district variation." However, the data included in the at-risk index raise several issues regarding their use in allocating revenue. Because the data are available only after each decennial census, gradual changes in the demographics of a district would not be recognized on an annual basis. In addition, census data elements used to derive the index were primarily sample data and subject to error, particularly in the smaller population districts. Further, while the index may measure an at-risk climate, it does not provide data on the actual number of at-risk students in a school district.

Following the adoption of Senate Bill 93-87, our efforts were focused on identifying an at-risk proxy that would meet several goals. The proxy should provide a fair representation of the at-risk population, be available on an annual basis, and be subject to verification. To that end, two types of proxies were examined: measures of achievement and the more traditional measures related to socioeconomic status.

### **Linking At-Risk Funding to Achievement**

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As noted earlier, the phrase "at risk" refers to those students who have the potential to perform poorly in or to drop out of school prior to graduation. Therefore, it seemed appropriate to examine the possibility of an achievement-oriented at-risk funding system in Colorado to direct resources to improve academic achievement. Kentucky, for example, is developing performance indices for each school, 90 percent of which are based on student achievement on statewide standardized tests. Additional funding is awarded to schools that show improvement, but attention and resources are also provided to schools struggling to meet their individual performance goals.

Initial discussion centered around the availability of data for an achievement-based approach in Colorado. Colorado, however, does not have a uniform statewide testing system that would provide consistent test score data across all school districts. Graduation

rates appeared to be the only available data which are collected uniformly statewide and might provide a relatively consistent measure of achievement, but the fact that each district is responsible for setting its own graduation standards created some doubt regarding the uniformity of the data. A review of graduation rates by district over a three-year period also revealed wide variances which could not be explained and no significant correlation with the at-risk index developed with the census data, as noted above. The coefficient for this correlation was 0.0124.

With continued refinement, House Bill 93-1313, the standards and assessment legislation, may provide a mechanism to access consistent achievement data statewide in the future. House Bill 1313 currently requires only that statewide assessments be administered on a stratified, random sampling basis. Tests will be administered in grades 4, 8, and 10. Schools are required to participate if selected for the statewide samples, but each school's participation is required only once every three years. Under the legislation, statewide assessments will not begin until January 1, 1996, with the first reporting of results not due until January 1, 1997.

#### **Other States' Experience - Defining and Funding At-Risk Students**

With little data available in Colorado on achievement measures, the focus turned to the more traditional measures of socioeconomic status. Other states' statutes were reviewed to determine what factors are used to identify at-risk students based on socioeconomic status, and how states allocate additional funds based on the presence of such students. The most common elements among the states for providing additional funds for the presence of at-risk youth based on poverty were AFDC, participation in free or reduced price lunch programs, or Chapter 1 eligibility. Some states, such as Minnesota, Ohio, and Pennsylvania, require a minimum concentration of eligible pupils before additional funding is provided; others increase funding as the concentration of the targeted population increases. Table 3 summarizes the range of additional funding per pupil and measures of eligibility provided by a sample of states. In most instances, it was difficult to determine the total funding allocated for the targeted pupil population because funding is included in the general aid formula.

**Table 3**  
**Range of Additional Funding and Measure of Eligibility**

State	Additional Funding Per Pupil	Measure
Kansas	5%	free lunch
Kentucky	15%	free lunch
New Jersey	15.1% - 20.2%, depending on grade level	free lunch
Massachusetts	20%	Chapter 1
Texas	20%	free or reduced lunch
Connecticut	25%	AFDC
Maryland	25%	Chapter 1
Missouri	25%	AFDC
Oregon	25%	children in poverty (census)
Vermont	25%	food stamp
Florida	44.7% increase over weighting for grades 9-12	participation in approved dropout prevention program
Illinois	0% - 62.5%, depending on concentration	Chapter 1
Minnesota	0% - 65%, depending on concentration	AFDC
Pennsylvania	6% - 27%, depending on concentration (stair step)	AFDC
Ohio	4% - 42%, depending on concentration (stair step)	AFDC

Source: *Public School Finance Programs of the United States and Canada, 1990-1991*, American Education Finance Association and Center for Study of the States.

It is interesting to note that Kansas requires that districts prove that they are spending at least the 5 percent add-on on an approved at-risk program. Staff in Kansas point out that the 5 percent weighting does not represent the actual additional cost associated with meeting the demands of at-risk pupils. Indiana is not included in the chart but it provides funding for at-risk students based on a district index that takes into account poverty, education, and single-parent household data from the latest census. Each of these factors is weighted to develop the index. A district's funding is based on its at-risk index multiplied by \$110 and then multiplied by the district pupil count. Districts are required to operate a program for at-risk pupils in order to receive the funds, but the use of the funds need not be linked to the programs.

## **Options for Measuring At-Risk Population in Colorado**

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Several options were examined for measuring the relative number of at-risk pupils in Colorado by school district. When feasible, these variables were compared to the data elements included in the at-risk index developed from census data. The data elements examined included the following:

- The number of children from families receiving AFDC;
- The number of children qualifying for Chapter 1 assistance;
- The number of children who qualify for the federal free lunch program or the reduced price lunch program;
- The number of juvenile arrests;
- The number of low birth-weight babies born;
- The number of teen births; and
- Graduation/dropout rates.

Several of the data elements listed above were eliminated from the analysis because of lack of timeliness, inconsistencies in data collection, insufficient data, and lack of data on a school district basis. The majority of data on children who qualify for Chapter 1 funding is based on census information and is only updated after each decennial census, defeating the purpose of finding an annual proxy for the at-risk index. Although the number of persons under 18 who have been arrested in 1990 is recorded consistently for each county, the data are not available by school district. Also, local law enforcement officials' discretion in deciding whether or not to arrest juveniles may make this data element unreliable for comparison. The number of low birth-weight babies born in each county is maintained by the Department of Health. However, these figures are relatively small and cannot be easily disaggregated to the school district level. Similarly, the number of teenagers having babies are recorded for each county but often consist of few cases and, due to recent regulations to ensure confidentiality, data are not reported when one person or two persons might be involved.

As a consequence of these various limitations, the at-risk index was correlated with the variables that were available on a school district basis to determine each variable's feasibility as a proxy. These variables included the percentage of children participating in the free lunch program and free and reduced price lunch programs, and counted for AFDC purposes. (The number of children who qualify for AFDC funding is not maintained by the Department of Social Services on a school district basis. However, school districts obtain numbers from county departments of social services for Chapter 1 purposes.) Of the data available on a school district basis, the number of pupils enrolled in the federal Free Lunch Program correlated most highly with the at-risk index derived from census data, with a coefficient of 0.7612. When correlating the at-risk index with the percentage of children receiving free lunch in just those districts with enrollments



over 300, the coefficient increased to approximately 0.9155. The coefficient for the correlation of the index and free and reduced price lunches was 0.7427, while the coefficient for the AFDC count was 0.6771. From these results, it was determined that the number of children who participate in the free lunch program provided the best proxy of the at-risk index.

### **Options for Providing Funding Adjustments Based on At Risk**

We examined two methodologies for targeting funding based on the number of at-risk students: modification of the instructional unit funding ratio and pupil weighting. The methodologies are generic in that they can be adapted to the at-risk indicator selected.

***Instructional unit funding ratios.*** One method of providing additional funding to districts based on their at-risk population is to reduce the instructional unit funding ratio in some proportion to the number of students meeting the eligibility requirements. The philosophy behind this approach is that it reflects a theory associated with the provision of at-risk programs (i.e., reductions in class size or increases in personnel). Several models for providing additional revenue based on the presence of at-risk youth were examined using such an adjustment. All of the models developed permit the reduction in the instructional unit funding ratio to be capped at a particular level.

***Pupil weighting.*** A second method of directing additional funding to at-risk students is to provide an additional weight for students who meet the eligibility criteria. The instructional unit funding ratio would still apply, but the additional weighting would result in funding for additional units. Since district instructional unit funding ratios are premised on district enrollments, the additional weight would not be applied until after a district's ratio is calculated.

### **Recommendations and Issues for Consideration**

Based on the analysis discussed on the preceding pages, it is recommended that:

*Data on children receiving free lunches under the National School Lunch Act be used as a proxy for at-risk youth. These data appear to indicate the presence of at-risk youth, as measured by the at-risk index, and are consistent with indicators used by several other states.*

*It is further recommended that additional funding for students participating in the free lunch program be phased out for districts with the lowest instructional unit funding ratios, based on the premise that these districts have class sizes small enough to provide needed services to at-risk youth. This concept should also be applied in such a way as to create a "floor" below which no district's ratio will be adjusted for the presence of at-risk youth.*

The examination of funding mechanisms raised several issues the General Assembly may wish to consider in targeting funding based on a measure of at-risk youth. The first issue relates to thresholds. The question arises as to whether additional funding should be provided for each student who meets the eligibility criteria or should a threshold be established under which no additional funding is received. A second issue involves the concentration of the targeted population. Should funding adjustments be made to reflect different concentrations of the at-risk population, or should all eligible pupils generate the same amount of funding?

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#### **OPTIONS FOR DETERMINING FUNDING COMPONENT VALUES**

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As with the March 1 preliminary study, this study also examined several methods of determining funding component values. At this time, however, we are not comfortable with any of the mechanisms investigated and recommend that we continue analyzing additional methods and report our findings to the Interim Committee on School Finance. This section of the report describes the most promising methodologies currently under examination by staff.

The preliminary study proposed that the weighted average cost-of-living indices for all districts be clustered or grouped into economic regions, similar to setting categories. Therefore, during the preliminary study and the early part of this study, much of the discussion related to determining funding component values focused on averaging the per unit expenditures of districts within each economic region, thereby retaining the basic structure of the current school finance act. The introduction of the economic data provided by Runzheimer, described earlier, shifted the focus of the analysis to the determination of individual district funding component values, or at least a statewide funding component value that could be adjusted for each district's individual cost-of-living index.

One valuable result of the examination of economic regions was the development of "fixed" and "variable" funding components. This concept allocates a fixed amount of funding to each district, regardless of economic region, and a variable amount of

funding to each district based on the economic region to which the particular district was assigned by a cluster analysis.

The use of a fixed funding component recognizes that variances in the cost of living of a particular region may be wider than variances found in educational expenditures. In other words, a floor exists for most school district expenditures below which no district can realistically be expected to spend. For example, the standardized economic indices developed through clustering of the census data for each economic region provided a range between 0.55 and 1.39, with 1.00 being the statewide average. Using only a district's cost of living and assuming a beginning teacher earns an average of \$18,000 statewide, the lowest cost region would, theoretically, only be required to pay that starting teacher \$9,900 ( $\$18,000 \times 0.55$ ). Clearly, a salary of \$9,900 for a certified teacher is unrealistically low. Therefore, we assumed that some fixed level of funding must be provided regardless of the cost of living of the region.

As defined in this analysis, the fixed component does not represent some actual measure of the traditionally-defined "fixed costs" of providing educational services, but instead measures the fundamental level of expenditures which would be guaranteed to all districts by the state. Districts would also be entitled to variable funding in excess of the fixed component, the actual amount to be based on a ratio that reflected differences in cost of living, as measured by the Runzheimer cost-of-living data and each district's labor pool area.

In pursuing the fixed and variable components approach, we first defined what school district expenditures we believed should be included in the definition of the fixed funding component and which should be excluded. We decided to limit our analysis to school district functions which reflect expenditure decisions made by local school boards and which relate directly to the operation of the school district. The functions which met our definition for inclusion in the analysis included instruction, support services, and administration. We chose to exclude from this analysis expenditures which vary greatly from one district to another. Functions for which the state has a specific reimbursement program, such as special education and transportation, were excluded, as were functions which operate as enterprises, such as food services. The complete list of functions used in the analysis are listed and described in Table 4.

After defining the expenditures to be included in the fixed funding component, several methods were explored to develop a process for estimating an appropriate fixed funding level. The most promising method involved using regression analysis to predict the central tendency statewide. A second method used a subset of all school districts after eliminating those districts with a high cost of living, low enrollment, or high percentage of at-risk pupils. A third method, which was not aggressively pursued, modeled the functional amount that an ideal district should be spending to provide basic educational services. Each of the methods is described in greater detail below.

**Table 4**

**Functional Expenditures Included in Base  
Funding Component Analysis**

<b>Function</b>	<b>Description</b>
<b>Instructional Expenditures</b>	Activities dealing directly with the teaching of pupils, or the interaction between teacher and pupils.
<b>Pupil Support Services</b>	Those activities which are designed to assess and improve the well-being of pupils and to supplement the teaching process.
<b>Instructional Staff Services</b>	Activities associated with assisting the instructional staff with the content and process of providing learning experiences for pupils.
<b>General Administration</b>	Activities concerned with establishing and administering policy in connection with operating the district.
<b>School Administration</b>	Activities concerned with overall administrative responsibility for a single school or a group of schools.
<b>Operations and Maintenance</b>	Activities concerned with keeping the physical plant open, comfortable, and safe for use, and keeping the grounds, buildings, and equipment in an effective condition and state of repair. Activities which maintain safety in buildings, on the grounds, and in the vicinity of schools are included.
<b>Business Support Services</b>	Includes four areas: 1) Fiscal services including budgeting, receiving and disbursing, financial accounting, payroll, inventory control, and internal auditing. 2) Facilities acquisition and construction, including improvements to sites. 3) Internal services including buying, storing, and distributing supplies, furniture, and equipment, and duplicating and printing. 4) Other business support services.
<b>Central Support Services</b>	Activities, other than general administration, which support each of the other instruction and supporting services programs, including planning, research, development, evaluation, information, and staff statistical and data processing services.
<b>Other Support Services</b>	Activities of any supporting service which cannot be classified in the preceding areas.
<b>Community Services</b>	Other activities not directly related to providing instruction to pupils.
<b>Transfer of Funds</b>	Includes capital reserve transfer and insurance transfer.

**Note:** In general, support services provide administrative, technical, personal, and logistical support to facilitate and enhance instruction.

## **Regression Analysis to Predict a Fixed Funding Component**

Regression analysis was performed using variables likely to contribute to each district's expenditures. In general, regression analysis uses data from one or more independent variables to derive an equation that predicts values for a dependent variable. In this study, regression analysis was used to predict the largest single expenditure function incurred by school districts -- instruction. Several regression models were developed and tested, although only the best models are reviewed below. The regression models were used to predict instructional expenditures on a per unit and per pupil basis.

To predict general fund instructional expenditures on a unit basis, our best regression model combined measures of enrollment, wealth, teacher experience, and cost of living. The resulting regression equation provided a constant value and coefficients which were applied to the factors used in the regression. For example, the equation is expressed as follows:

$$\begin{aligned} \text{Instructional expenditures per pupil} = & \$14,499 + \\ & \$272.7 \times \text{average teacher experience} + \\ & \$41.4 \times \text{average assessed value per pupil} + \\ & \$5,360.0 \times \text{logarithm of enrollment} + \\ & \$19.0 \times \text{average rent.} \end{aligned}$$

The regression equation allowed for average and median values to be inserted in order to predict the central tendency of instructional expenditures per unit statewide.

## **Averaging Low-Cost Districts**

An alternative to regression analysis consisted of averaging the instructional expenditures of a subset of all school districts. In this method, the districts were clustered according to census economic data and the lowest average cost-of-living cluster was found. All districts in the other cost-of-living clusters were eliminated because their expenditure differences were assumed to be driven by cost of living. Of the remaining 86 districts, those with enrollment of 300 and less were eliminated, based on the assumption that these small attendance districts do not accurately reflect the minimum cost of providing educational services. At this point, 37 districts remained in the sample. Finally, the districts with at-risk student populations in excess of the average of the remaining districts were eliminated because it was believed that the high percentages of at-risk students would influence the expenditures of those districts. This step left 20 districts whose instructional expenditures were averaged on a per pupil and expected unit basis. This method was discontinued because the small number of districts remaining in the final group provided an insufficient sample size.

## **Ideal District Expenditures**

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During our analysis of funding components, the concept of developing a model of what school districts should be spending to provide basic educational services was discussed. Members of the advisory group suggested that an ideal system of school finance would incorporate measures of outcome and achievement. However, no data exist which reflect student achievement or outcomes. In addition, the approach would have required modeling of functions involving value judgements, such as selecting a basic curriculum.

## **Data Issues**

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Throughout this section of the report, historical expenditures were the basis for determining funding components, as they provide the best available data relating to differences among districts. The source for expenditure data in this section is 1991 general fund expenditures, excluding Designated Purpose Grant funds, as provided by the Colorado Department of Education.

In many of the methods described in this section, instructional expenditures were predicted and converted to total expenditures. For example, instructional expenditures accounted for approximately 61.4 percent of total expenditures in 1991. Therefore, the predicted values for instructional expenditures were divided by 61.4 percent to estimate the fixed funding component as it relates to total expenditures.

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## CHAPTER II

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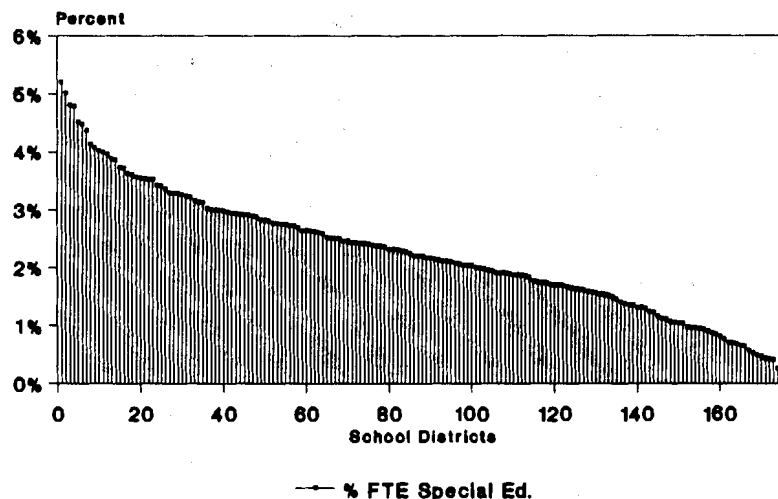
## CHAPTER II

Chapter II addresses the portion of Senate Bill 93-87 which directs the Legislative Council staff to develop recommendations concerning the collection of additional data, including: student mobility rates; fee and tuition revenue; percentage of the student population comprised of special education students; and assessed valuation per pupil.

According to the bill, the additional data would be used to improve the existing school finance database, to further analyze school finance issues, and to develop future school finance policy which is less reliant on wealth-based factors.

The following pages present options for collection of additional data relating to fee and tuition revenue and student mobility rates. We have not conducted an in-depth study of the latter two issues in the charge -- percentage of the student population comprised of special education students and assessed valuation per pupil -- because we are unaware of deficiencies in the existing databases. Graph 3 illustrates the range of percentages of full-time equivalent special education students in school districts in the 1991-92 school year. Percentage figures are also available on the number of students, rather than full-time equivalents.

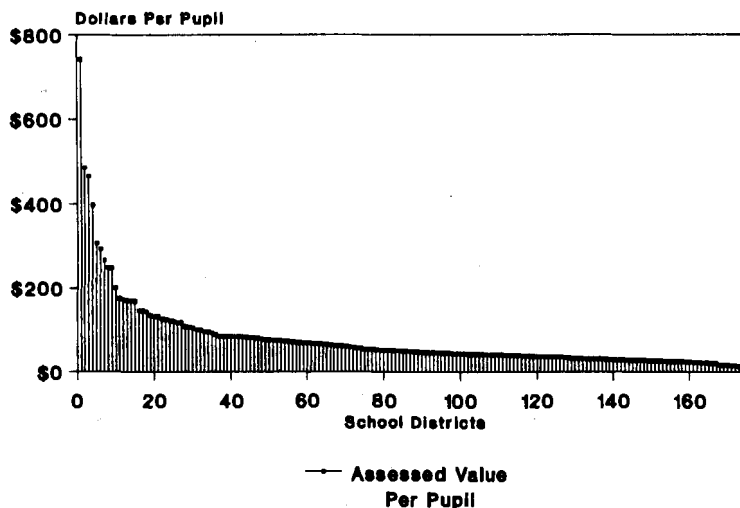
**Graph 3**  
**PERCENTAGE OF FTE SPECIAL EDUCATION**  
**STUDENTS 1991-92**





Graph 4 presents the range in assessed values per pupil across the state in FY 1992-93.

**Graph 4**  
**FY 1992-93 ASSESSED VALUE**  
**PER PUPIL**



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### FEE AND TUITION REVENUE

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State law permits local school boards to impose fees in certain instances. Local boards may impose fees for textbooks and expendable supplies, activities, and transportation.<sup>1</sup> In addition, state law permits districts to impose fees for tuition and summer school. Colorado Department of Education (CDE) regulations require districts to separately report revenue from textbook fees, summer school fees, tuition, and transportation fees. However, while school districts are required to report all revenue received, the revenue classifications required by CDE may not specifically identify the gamut of fees collected by school districts. For example, districts are not required to itemize revenue from fees collected for expendable supplies or revenue from activity fees. Current CDE procedures for reporting of revenue from fees for expendable supplies and activity fees are discussed below. In addition, options for the collection of additional data on fee revenue are presented.

## **Current CDE Data Collection**

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No statewide standardized procedures exist concerning the reporting of fee revenue by buildings to the local school district. According to CDE staff, the amount of data collected by the district on fee revenue depends on the local school board's policy on the imposition of fees. CDE requires school districts to report revenue and expenditures from various sources using a standardized form. As discussed above, CDE requires districts to itemize revenue from tuition, transportation fees, summer school fees, and textbook fees, but does not require districts to itemize revenue from fees for expendable supplies or revenue from activity fees. The reporting of these fees is discussed below.

***Expendable supplies.*** State law permits local school boards to collect "reasonably necessary" fees for expendable supplies if such supplies are not provided free of charge. A definition of expendable supplies is not provided in statute or in CDE regulations. In addition, school districts are not required to itemize revenue from fees for expendable supplies. Therefore, information on the amount of revenue collected by districts from fees for such supplies is not available. According to CDE staff, many districts report revenue from fees for expendable supplies under the general fund "all other local revenue" line item on the reporting form.

***Activity fees.*** State law also permits local boards to charge miscellaneous fees on a voluntary basis for participating in or attending a school-sponsored activity or program. Again, districts are not required to itemize revenue from activity fees. A district may place activity fee revenue into the district's general fund under the "all other local revenue" line item. However, CDE staff indicate that many districts place revenue from activity fees into a pupil activity fund, although use of such a fund is optional.

## **Options for the Collection of Additional Data**

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As discussed above, school buildings and school districts are not currently required to itemize revenue from fees for expendable supplies or revenue from fees for school-sponsored activities. If more detailed data on fee revenue would assist the General Assembly in analyzing and developing school finance policies, the General Assembly could pursue the following options for improving the collection of data.

- 1) The General Assembly could direct CDE to develop a definition of what constitutes a fee, including standardized definitions of fees for expendable supplies that are required as a condition of attendance and fees for school-sponsored activities or programs.

- 2) The General Assembly could direct CDE to develop and implement a uniform reporting format for use at the building level to improve and standardize the collection of data on revenue from fees for expendable supplies and revenue from activity fees.
- 3) The General Assembly could direct CDE to amend its reporting form to include itemized revenue from fees for expendable supplies and revenue from activity fees.

House Bill 93-1320 directs the state board of education to adopt rules and regulations establishing a uniform budget format for use by school districts. In addition, the bill requires that school district budgets be presented in an easily understandable "summary format" that "will allow for comparisons of revenues and expenditures among school districts by pupil." While House Bill 1320 does not directly relate to the issue at hand -- more specific reporting of fee and tuition revenue -- it may provide an impetus for further review of reporting requirements at the building and district level.

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## MOBILITY RATES

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Research indicates that a relationship may exist between the number of times a student changes schools in given school year, or over several years, and student achievement. Changing schools frequently may place the student "at-risk" for performing poorly or dropping out of school prior to graduation. Research is limited, however, on the relationship between mobility and achievement. One problem identified with examining the effects of mobility upon student achievement is that other variables, such as socioeconomic status and ethnicity, are also highly related to achievement and to mobility.<sup>2</sup>

Calculation of a mobility rate raised numerous questions because there are a variety of ways to differentiate mobile and, conversely, stable student populations. Minor variations in a mobility rate calculation can produce significantly different results. The report, "Student Mobility Rate: A Moving Target,"<sup>3</sup> suggests several issues that should be considered when developing an index, as the definition and formula chosen need to match the use to which the index will be put. The level of analysis is an important consideration. Mobility can be indexed in terms of individual students, schools, or districts. In addition, mobility can be indexed for a single year or for a longer time span, and can be indexed by the number of moves made. The cause of moves is another factor to be considered in developing a mobility rate. Changes in schools can occur because of family related issues or because of magnet or alternative programs, discipline, school

boundary changes, or construction of a new school. Should students leaving a school be included in a mobility index? The feasibility of data collection might be an important factor in resolving these issues.

The Colorado Department of Education (CDE) does not currently calculate mobility rates. However, CDE collects data on students in grades 7 through 12 in order to calculate dropout rates and graduation rates. This data may be useful in computing mobility rates. In addition, CDE has applied for a federal grant to study and pilot the feasibility of sharing student record information over a statewide computer network. This statewide student information system might include the data necessary to calculate mobility rates. Ideas for measuring and defining student mobility are provided below. In addition, use of CDE data to calculate mobility rates and a discussion of the student information system pilot program are also presented. Finally, options for collecting additional data to calculate student mobility rates are discussed.

### **Relationship Between Mobility and Student Achievement**

Staff at the Austin, Texas public school system developed a statistical model, or mobility impact index, in an effort to determine if a relationship exists between mobility and student achievement. Using historical and current-year mobility data on individual students in the Austin school district, each student was classified into one of four mobility categories, depending on the frequency and timing of the student's moves. Student scores on standardized achievement tests were compared for each group and highly significant differences were found among the four mobility groups. The analysis indicated that the least mobile group was always the highest in achievement. In addition, the researchers found that student moves in the current school year have the greatest impact upon achievement, while past year moves seem to have little effect upon student performance on standardized achievement tests.

### **Defining and Measuring Mobility**

The Austin researchers surveyed education professionals in all 50 states to identify the methods currently being used by school districts to define and measure student mobility. Over 50 professional organizations responded and provided mobility definitions and formulas. Based on an analysis of these definitions and formulas, the researchers categorized mobility indices into three groups and developed recommended formulas for each group. Each group of indices measures a different aspect of student mobility and is described below.

***Stability indices:*** Indices that describe the proportion of students who are enrolled for the entire school year or a specified portion of the school year and therefore receive the full impact of a school's programs. Stability would be measured by dividing the number of students who remain in school over a full year (or given period) by the school or district's beginning membership.

***Turbulence indices:*** Indices that describe the amount of time and effort that changes in a student's status cause a school's staff to expend. Turbulence would be measured by dividing the number of times a student's record is changed by the school or district's enrollment.

***Mobility indices:*** Indices that describe family uprootedness that impacts the continuity of a student's education. Mobility would be measured by dividing the sum of the number of transfers into a school or district and the number of withdrawals by the school's enrollment.

***School or district mobility rate.*** Of the indices described above, mobility indices appear to be the most appropriate indices for measuring student mobility in a school or district's student population. In addition, a mobility index similar to the index recommended by the Austin researchers (and described above) may be useful in comparing the student mobility of an individual school or district to other schools or districts. However, while this type of mobility index provides an aggregate measurement of the school or district's mobility rate, it does not provide a means for determining the mobility rate of an individual student, or the number of times an individual student transfers schools during a given school year.

***Individual student mobility rate.*** An individual student mobility index would identify the frequency of moves by individual students and then group these students into frequency ranges. For example, while a school's overall mobility rate may be 12 percent, it may be useful to know that 5 percent of the students in the school attended two or more schools previous to the current school. Calculating an individual student mobility rate would require collection and analysis of individual student data, rather than data on the aggregate number of withdrawals or transfers. Thus, additional data would need to be collected to determine the frequency and nature of an individual student's withdrawal or transfer.

## **Use of CDE Data to Calculate Mobility Rates**

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A review of the data currently collected by CDE that may be used to calculate both school and individual student mobility rates is discussed below.

**Data currently collected by CDE.** CDE requires each building with grades 7 through 12 to complete an end-of-year report that provides pupil membership and transfer data by grade for the year July 1 through June 30. Data from the report is used to calculate a district's dropout rate and graduation rate and includes the following data elements:

- 1 - the number of students who completed the prior school year;
- 2 - incoming transfers;
- 3 - dropouts from the previous year who returned to school;
- 4 - students who transferred to another school in the district;
- 5 - students who transferred out of the district;
- 6 - students who withdrew due to illness or death; and
- 7 - students who dropped out.

**Dropout rate.** A district's dropout rate reflects the percentage of students enrolled in grades 7 through 12 who leave school during a single school year. The rate is calculated by dividing the number of dropouts by the district's dropout membership base. A district's membership base equals the number of students who completed the prior grade, plus incoming transfers, plus dropouts from the prior year who return to school.

**Graduation rate.** A district's graduation rate is a cumulative rate that calculates the number of students who actually graduate as a percent of those who were in membership and could have graduated over a four-year period. The rate is calculated by dividing the number of graduates by the graduation membership base. The membership base is derived by taking the end-of-year count of eighth graders four years earlier and adjusting the count for the number of students who have transferred into or out of the district during the years covering grades 9 through 12.

**School or district mobility rates.** The data collected by individual schools with grades 7 through 12 as part of the dropout data collection system could be used to calculate a school or district mobility rate for grades 7 through 12. For example, dividing the total number of withdrawals and transfers during the year by a school's enrollment or membership base would yield the mobility index described earlier for students in grades 7 through 12. Thus, collection of the data elements 1 through 7 listed above for grades K through 6, as well as grades 7 through 12, would enable schools and CDE to calculate a school or district mobility rate.

Table 5 provides examples of mobility rates for grades 7 through 12 using the dropout rate and graduation rate database compiled by CDE. The table illustrates a point made earlier in this discussion: minor changes in a mobility rate calculation can produce significantly different results.

Table 5

**Examples of Various Mobility Rate Calculations  
(Grades 7 through 12 Only)**

COUNTY	DISTRICT	(1) TRANSFERS IN PLUS TRANSFERS OUT	(2) TRANSFERS IN	(3) TRANSFERS IN PLUS TRANSFERS WITHIN	(4) TRANSFERS IN, WITHIN AND OUT
ADAMS	MAPLETON	52.74	27.91	31.94	56.77 *
ADAMS	NORTHGLENN	32.34	20.20	26.29	38.42 *
ADAMS	COMMERCE CITY	59.80	37.84	50.04	72.20 *
ADAMS	BRIGHTON	33.51	19.68	24.96	38.78
ADAMS	BENNETT	34.29	20.75	25.65	39.19
ADAMS	STRASBURG	44.92	26.74	36.36	54.55
ADAMS	WESTMINSTER	59.93	32.42	40.05	67.55 *
ALAMOSA	ALAMOSA	29.91	18.95	27.05	38.01 *
ALAMOSA	SANGRE DECRISTO	32.52	10.57	10.57	32.52
ARAPAHOE	ENGLEWOOD	63.11	44.31	58.76	77.57 *
ARAPAHOE	SHERIDAN	51.66	27.50	28.94	53.11
ARAPAHOE	CHERRY CREEK	29.83	18.58	22.48	33.72
ARAPAHOE	LITTLETON	23.25	13.09	14.84	25.00
ARAPAHOE	DEER TRAIL	19.74	9.21	9.21	19.74
ARAPAHOE	AURORA	52.83	31.68	39.59	60.75 *
ARAPAHOE	BYERS	28.66	12.74	13.38	29.30
ARCHULETA	ARCHULETA	35.28	18.88	20.00	36.40
BACA	WALSH	24.29	10.00	10.00	24.29
BACA	PRITCHETT	51.28	23.08	23.08	51.28
BACA	SPRINGFIELD	21.01	10.14	10.14	21.01
BACA	VILAS	26.47	14.71	14.71	26.47
BACA	CAMPO	14.29	2.86	2.86	14.29
BENT	LAS ANIMAS	36.50	22.50	31.50	45.50
BENT	MCCLAVE	18.46	12.31	12.31	18.46
BOULDER	ST VRAIN	38.19	25.83	39.23	51.59 *
BOULDER	BOULDER	34.30	22.07	29.74	41.97
CHAFFEE	BUENA VISTA	32.84	16.92	17.41	33.33 *
CHAFFEE	SALIDA	24.96	13.96	17.63	28.62
CHEYENNE	KIT CARSON	34.38	14.06	14.06	34.38
CHEYENNE	CHEYENNE R-5	14.09	6.71	7.38	14.77
CLEAR CREEK	CLEAR CREEK	28.33	16.50	21.33	33.17
CONEJOS	NORTH CONEJOS	23.71	16.53	19.32	26.49 *
CONEJOS	SANFORD	5.71	1.43	1.43	5.71
CONEJOS	SOUTH CONEJOS	1.93	1.45	1.45	1.93
COSTILLA	CENTENNIAL	25.17	10.20	10.20	25.17
COSTILLA	SIERRA GRANDE	32.61	15.22	15.94	33.33
CROWLEY	CROWLEY	38.25	20.74	21.20	38.71
CUSTER	WESTCLIFFE	46.98	22.15	22.15	46.98
DELTA	DELTA	35.40	20.84	24.84	39.41
DENVER	DENVER	63.15	48.43	81.19	95.91 *
DOLORES	DOLORES	12.00	8.67	8.67	12.00
DOUGLAS	DOUGLAS	25.07	15.39	17.15	26.83 *
EAGLE	EAGLE	48.55	26.73	29.73	51.55
ELBERT	ELIZABETH	33.17	14.44	15.40	34.13
ELBERT	KIOWA	37.00	22.00	23.00	38.00

\* Districts having a separate school for alternative programs in school year 1991-92.

NA: Not applicable

Table 5

**Examples of Various Mobility Rate Calculations  
(Grades 7 through 12 Only)**

COUNTY	DISTRICT	(1)	(2)	(3)	(4)
		TRANSFERS IN PLUS TRANSFERS OUT	TRANSFERS IN	TRANSFERS IN PLUS TRANSFERS WITHIN	TRANSFERS IN, WITHIN AND OUT
ELBERT	BIG SANDY	37.69	20.77	20.77	37.69
ELBERT	ELBERT	69.81	43.40	52.83	79.25
ELBERT	AGATE	42.86	28.57	28.57	42.86
EL PASO	CALHAN	35.76	17.88	19.21	37.09
EL PASO	HARRISON	74.78	43.80	55.72	86.70 *
EL PASO	WIDEFIELD	50.42	27.33	36.24	59.32
EL PASO	FOUNTAIN	85.93	42.77	45.07	88.24
EL PASO	COLORADO SPRING	69.62	46.30	65.90	89.23 *
EL PASO	CHEYENNE MOUNT	33.42	17.41	18.33	34.33
EL PASO	MANITOU SPRINGS	53.32	30.86	31.45	53.91
EL PASO	ACADEMY	33.12	20.33	23.35	36.15
EL PASO	ELLCOTT	39.35	21.30	22.69	40.74
EL PASO	PEYTON	52.86	25.00	25.71	53.57
EL PASO	HANOVER	137.04	88.89	92.59	140.74
EL PASO	LEWIS-PALMER	29.27	16.82	17.36	29.82
EL PASO	FALCON	41.94	21.86	23.94	44.02
EL PASO	EDISON	20.00	6.67	6.67	20.00
EL PASO	MIAMI-YODER	73.44	45.31	48.44	76.56
FREMONT	CANON CITY	27.94	15.25	15.92	28.61
FREMONT	FLORENCE	41.24	22.80	26.27	44.92
FREMONT	COTOPAXI	47.97	26.83	26.83	47.97
GARFIELD	ROARING FORK	24.30	12.78	16.18	27.70
GARFIELD	RIFLE	29.82	13.42	15.89	32.30
GARFIELD	PARACHUTE	51.88	22.50	23.13	52.50
GILPIN	GILPIN	21.71	9.87	9.87	21.71
GRAND	WEST GRAND	23.77	11.66	12.11	24.22
GRAND	EAST GRAND	38.57	18.39	19.51	39.69
GUNNISON	GUNNISON	28.17	16.31	18.62	30.48 *
HINSDALE	HINSDALE	N/A	N/A	N/A	N/A
HUERFANO	HUERFANO	31.34	11.99	12.26	31.61
HUERFANO	LA VETA	50.41	35.54	36.36	51.24
JACKSON	NORTH PARK	29.29	17.14	20.71	32.86
JEFFERSON	JEFFERSON	42.85	30.56	47.32	59.61 *
KIOWA	EADS	17.86	6.43	6.43	17.86
KIOWA	PLAINVIEW	31.71	24.39	24.39	31.71
KIT CARSON	ARRIBA-FLAGLER	18.49	10.92	10.92	18.49
KIT CARSON	HI PLAINS	8.33	5.00	5.00	8.33
KIT CARSON	STRATTON	20.49	9.02	9.02	20.49
KIT CARSON	BETHUNE	15.15	9.09	9.09	15.15
KIT CARSON	BURLINGTON	16.48	10.34	10.34	16.48
LAKE	LAKE	34.83	20.67	26.29	40.45
LA PLATA	DURANGO	37.79	23.37	26.80	41.22 *
LA PLATA	BAYFIELD	33.63	18.88	20.06	34.81
LA PLATA	IGNACIO	33.58	19.30	23.81	38.10 *
LARIMER	POUDRE	22.67	13.27	16.22	25.61 *

\* Districts having a separate school for alternative programs in school year 1991-92.

NA: Not applicable



Table 5

**Examples of Various Mobility Rate Calculations  
(Grades 7 through 12 Only)**

COUNTY	DISTRICT	(1) TRANSFERS IN PLUS TRANSFERS OUT	(2) TRANSFERS IN	(3) TRANSFERS IN PLUS TRANSFERS WITHIN	(4) TRANSFERS IN, WITHIN AND OUT
LARIMER	THOMPSON	35.01	23.51	34.53	48.03 *
LARIMER	ESTES PRK	32.88	16.54	18.08	34.42
LAS ANIMAS	TRINIDAD	31.89	17.64	20.76	35.01
LAS ANIMAS	PRIMERO	33.33	15.66	15.66	33.33
LAS ANIMAS	HOEHNE	15.63	3.13	3.13	15.63
LAS ANIMAS	AGUILAR	24.36	11.54	11.54	24.36
LAS ANIMAS	BRANSON	18.18	9.09	13.64	22.73
LAS ANIMAS	KIM	20.51	10.26	10.26	20.51
LINCOLN	GENOA-HUGO	60.58	25.00	25.00	60.58
LINCOLN	LIMON	26.32	15.79	15.79	26.32
LINCOLN	KARVAL	28.21	12.82	12.82	28.21
LOGAN	VALLEY	20.60	10.30	13.12	23.42 *
LOGAN	FRENCHMAN	35.62	24.66	27.40	38.36
LOGAN	BUFFALO	19.59	13.40	13.40	19.59
LOGAN	PLATEAU	18.03	9.84	9.84	18.03
MESA	DEBEQUE	45.66	28.26	30.43	47.83
MESA	PLATEAU	110.45	104.18	104.18	110.45 *
MESA	MESA VALLEY	30.76	20.79	30.55	40.51 *
MINERAL	CREEDE	46.34	21.95	21.95	46.34
MOFFAT	MOFFAT	23.22	10.23	11.21	24.20
MONTEZUMA	MONTEZUMA	28.83	14.16	14.23	28.90
MONTEZUMA	DOLORES	35.77	18.70	18.70	35.77
MONTEZUMA	MANCOS	31.44	12.23	13.10	32.31
MONTROSE	MONTROSE	26.40	15.50	19.10	30.00 *
MONTROSE	WEST END	24.53	14.47	16.35	26.42
MORGAN	BRUSH	26.42	14.01	14.01	26.42
MORGAN	FT MORGAN	32.18	18.34	22.40	36.25 *
MORGAN	WELDON	19.05	9.52	9.52	19.05
MORGAN	WIGGINS	29.44	16.24	17.77	30.96
OTERO	EAST OTERO	32.02	20.42	26.45	38.05
OTERO	ROCKY FORD	31.12	14.00	14.36	31.49
OTERO	MANZANOLA	24.14	6.03	6.03	24.14
OTERO	FOWLER	26.36	13.18	13.64	26.82
OTERO	CHERAW	34.09	15.91	17.05	35.23
OTERO	SWINK	30.41	14.04	14.04	30.41
OURAY	OURAY	29.47	16.84	16.84	29.47
OURAY	RIDGWAY	44.21	23.16	23.16	44.21
PARK	PLATTE CANYON	37.90	20.04	20.83	38.69
PARK	PARK	51.59	20.63	23.02	53.97
PHILLIPS	HOLYOKE	20.00	10.80	10.80	20.00
PHILLIPS	HAXTUN	14.89	3.55	3.55	14.89
PITKIN	ASPEN	30.96	19.54	20.30	31.73
PROWERS	GRANADA	24.73	12.90	12.90	24.73
PROWERS	LAMAR	31.55	17.67	21.71	35.59 *
PROWERS	HOLLY	6.76	0.68	0.68	6.76

\* Districts having a separate school for alternative programs in school year 1991-92.

NA: Not applicable

Table 5

**Examples of Various Mobility Rate Calculations  
(Grades 7 through 12 Only)**

COUNTY	DISTRICT	(1) TRANSFERS IN PLUS TRANSFERS OUT	(2) TRANSFERS IN	(3) TRANSFERS IN PLUS TRANSFERS WITHIN	(4) TRANSFERS IN, WITHIN AND OUT
PROWERS	WILEY	7.25	5.07	5.07	7.25
PUEBLO	PUEBLO CITY	41.59	28.99	48.35	60.95 *
PUEBLO	PUEBLO RURAL	26.45	12.53	13.60	27.53
RIO BLANCO	MEEKER	30.79	17.07	19.21	32.93
RIO BLANCO	RANGELY	29.01	14.33	15.70	30.38
RIO GRANDE	DEL NORTE	23.79	11.15	11.15	23.79
RIO GRANDE	MONTE VISTA	32.34	17.93	19.68	34.09 *
RIO GRANDE	SARGENT	26.54	13.74	13.74	26.54
ROUTT	HAYDEN	29.13	13.11	17.96	33.98
ROUTT	STEAMBOAT SPRIN	29.93	14.16	14.45	30.22
ROUTT	SOUTH ROUTT	26.71	11.80	11.80	26.71
SAGUACHE	MTN VALLEY	29.21	10.11	17.98	37.08
SAGUACHE	MOFFAT	51.11	22.22	22.22	51.11
SAGUACHE	CENTER	44.19	28.46	42.32	58.05
SAN JUAN	SILVERTON	73.33	23.33	33.33	83.33
SAN MIGUEL	TELLURIDE	51.64	20.49	22.13	53.28
SAN MIGUEL	NORWOOD	32.80	23.20	24.80	34.40
SEDGWICK	JULESBURG	16.85	7.30	8.43	17.98
SEDGWICK	PLATTE VLY	27.17	15.22	16.30	28.26
SUMMIT	SUMMIT	40.50	22.74	24.77	42.52
TELLER	CRIPPLE CREEK	45.51	26.28	27.56	46.79
TELLER	WOODLAND PARK	54.37	27.88	30.36	56.85
WASHINGTON	AKRON	19.44	10.00	10.56	20.00
WASHINGTON	ARICKAREE	15.63	7.81	9.38	17.19
WASHINGTON	OTIS	10.11	3.37	5.62	12.36
WASHINGTON	LONE STAR	10.34	10.34	10.34	10.34
WASHINGTON	WOODLIN	43.18	29.55	29.55	43.18
WELD	GILCREST	29.94	13.23	15.88	32.59
WELD	EATON	27.58	19.16	23.79	32.21
WELD	KEENESBURG	28.09	13.48	16.29	30.90
WELD	WINDSOR	21.84	10.03	10.44	22.25
WELD	JOHNSTOWN	38.99	19.60	20.00	39.39
WELD	GREELEY	56.71	37.54	54.79	73.95
WELD	PLATTE VLY	27.34	13.16	15.44	29.62
WELD	FORT LUPTON	28.74	19.66	21.26	30.34
WELD	AULT-HGHLND	33.75	18.27	21.67	37.15
WELD	BRIGGSDALE	30.00	13.33	16.67	33.33
WELD	PRAIRIE	20.75	9.43	9.43	20.75
WELD	GROVER	25.64	25.64	25.64	25.64
YUMA	WEST YUMA	19.52	9.21	12.06	22.37
YUMA	EAST YUMA	15.51	8.80	11.81	18.52
**STATE TOTAL**		41.84%	26.97%	37.79%	52.66%

\* Districts having a separate school for alternative programs in school year 1991-92.

NA: Not applicable

***Individual student mobility rates.*** While expanding CDE's current data collection to include grades K through 6 would allow the calculation of a mobility rate for a school grade or school district, calculation of an individual student mobility rate would not be possible using the data currently collected. For example, a student may transfer among two or more schools during a given school year. Schools are not currently required to collect data on the number of schools a student previously attended. In addition, CDE staff indicate that many school districts do not request records or transcripts from schools the student has previously attended.

### **Statewide Student Information System Pilot Project**

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The implementation of a statewide computerized student records system may enable a school or district's mobility rate to be calculated and would possibly provide the data necessary to calculate an individual student's mobility rate. CDE is requesting an \$80,000 federal grant to study the feasibility of creating a computerized data network of student record information and to implement the system among a pilot group of school districts. The system would allow schools to send and receive student transcripts and records electronically over a computer network. Of the \$80,000, the department is requesting \$55,000 for hardware, software, and consulting services to link a test group of districts. The remaining \$25,000 would be used to conduct a feasibility study of the costs and benefits of implementing the system on a statewide basis.

### **Recommendations for the Collection of Additional Data**

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As discussed above, research indicates that mobility rates may be an indicator of the relative at-risk student population of the school or district. In addition, mobility rates may either be calculated on a school or district level, or on an individual student level. If the General Assembly determines that collection of mobility rate data would improve its school finance data base, several options exist for the collection of additional data to aid in the calculation of mobility rates. These options depend on whether information is desired on school or district mobility rates, or individual student mobility rates, and are presented below.

#### ***School or district mobility rate***

- 1) The General Assembly could direct CDE, in consultation with districts, to develop a standard definition of student mobility and a means for measuring a school's mobility rate given the data currently collected in the dropout data collection system.

- 2) The General Assembly could direct CDE to expand the current dropout data collection system and require schools to provide the same data for grades K through 6. Collection of this data would enable the school or CDE to calculate a mobility rate for each school and district.

***Individual student mobility rate.*** Collecting data needed to determine an individual student mobility rate could be accomplished several ways. These options are discussed below.

- 1) The General Assembly could direct CDE to require that schools ask each incoming transfer student for the number of schools the student had already attended during the school year. At the end of the school year, this data could be tabulated into a format summarizing the frequency and distribution of student mobility.
- 2) The General Assembly could direct CDE to require that schools request a student's parent or guardian to provide records from all schools previously attended during the school year. Mobility data on each student could then be calculated and verified.
- 3) The General Assembly could direct CDE to implement a statewide computerized student information system as described above. Assuming the necessary data elements were included in the system and required of each school, data on individual student mobility rates could be collected. Such a system would most likely require tracking students by social security number or an assigned number, since student names change. Federal rules allow governmental organizations to use a social security number if the number is provided voluntarily by the individual.

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## CHAPTER III

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## **CHAPTER III**

This chapter addresses the directive contained in Senate Bill 93-87 regarding the submission of recommendations on the equalization of additional revenue available to school districts. Much of the groundwork for the analyses in this chapter was laid in the preliminary setting category report.

House Bill 92-1344 called for a study of additional funding sources available to school districts in each setting category. In the preliminary report, these funding sources were defined as revenue that was not otherwise accounted for in state equalization, state categorical funding, or federal categorical programs. Thus, data were presented on the following revenue streams: specific ownership tax, federal impact assistance (Public Law 81-874), fees charged by school districts, school district investment income, other general fund revenue from local sources, and additional property tax revenue for general fund use authorized by the district electorate. For each of these revenue sources, the preliminary report presented an overview of the laws or regulations that provide for their distribution or reporting. In addition, the report examined the range of per pupil revenue received by district and by setting category for the respective revenue source. The data presented in the preliminary report was the basis for conducting the analyses required by Senate Bill 93-87.

In developing recommendations regarding the equalization of additional revenue available to school districts, the definition of additional revenue from local sources is limited to revenue accounted for in the general fund. Two sources of revenue discussed in the preliminary report but excluded by this definition are interest income deposited in funds other than the general fund and pupil activity fund revenue. The analysis is further limited to local revenue over which school districts have control or that is provided through some type of formula distribution. With this definition, additional property tax revenue generated as a result of a successful override election was excluded from the analysis. All sources of federal revenue were reviewed to ensure that unrestricted federal impact aid is the only revenue stream that meets the definition we established in the preliminary study. It appears that impact aid is the only identifiable federal revenue stream that is not a designated purpose grant fund and, consequently, we limited our analysis to this particular federal source of money.

This chapter is divided into two sections: additional local sources of revenue for the general fund and federal impact aid. Each section is followed by a discussion of recommendations and issues for consideration.

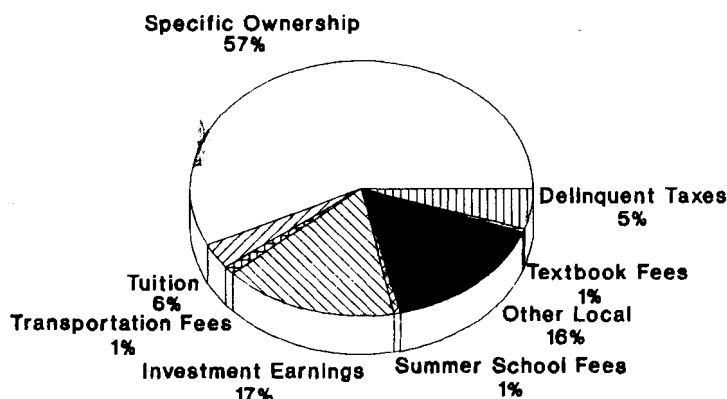
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## Additional Local Sources of Revenue for the General Fund

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School district general funds are primarily supported by local property taxes and state aid provided through the state school finance act. In general, these revenue sources are considered equalized revenue, which are not the focus of this report. However, school districts receive significant sums of money from local sources which are not tied to any particular service or educational program and which are not included in the equalization program. Graph 5 provides an illustration of these sources of revenue and the relative importance of each of these sources in 1991, the most recent year such data are available. Table 6 illustrates the 1991 revenue per pupil by district for each of the sources.

**Graph 5**  
**1991 GENERAL FUND REVENUE FROM LOCAL**  
**SOURCES EXCLUDING PROPERTY TAX**



The eight revenue sources listed in Graph 5 -- specific ownership tax; delinquent taxes, penalties, and interest; tuition from individuals and districts; transportation fees from individuals and districts; earnings on investments; textbook fees; summer school fees; and other local sources -- accounted for \$159.8 million of general fund revenue in 1991. This figure represents 12.7 percent of total revenue from local sources when property taxes are included. Four of these local revenue sources -- tuition, transportation fees, textbook fees, and summer school fees -- accounted for \$8.5 million of the \$159.8 million total, or 5.3 percent. In 1991, delinquent taxes, penalties and interest generated almost as much revenue as these four sources combined, \$8.0 million. Specific ownership taxes represented 57.3 percent of the total, and earnings on investments and other local sources followed in importance with 16.5 percent and 15.8 percent of the total, respectively. Each of these sources of revenue is described briefly below;

a more thorough description and discussion of these sources can be found in Legislative Council Research Publication No. 376, *Legislative Council Staff Report of the School District Setting Category Study*, March 1993.

***Delinquent taxes, penalties and interest.*** This revenue source includes property taxes collected after the due date and the penalties and interest charged on such taxes. In 1991, \$8.0 million was collected by school districts statewide.

***Earnings on investments.*** School districts credited \$26.4 million in investment earnings to the general fund in 1991. This figure does not represent the total of school district investment earnings as other funds also are credited with interest. Earnings on investments includes interest received on treasury bills, savings accounts, or other interest-bearing obligations.

***Specific ownership taxes.*** A school district's specific ownership tax receipts are based on the proportion of property taxes collected by the district relative to all property taxes collected in the county. Tax rates and the allocation formula are prescribed by state law. In 1991, \$91.5 million of specific ownership tax receipts were accounted for in school district general funds. According to the *Financial Policies and Procedures Handbook*, specific ownership tax revenue may be apportioned to any fund with a mill levy. Hence, districts have the option of crediting these tax receipts to the general fund, bond redemption fund, or to both funds.

***Summer school fees.*** School districts may charge fees for courses offered during the summer term, although these fees may not exceed the school's per pupil operating costs during the summer term. School districts collected just over \$1 million in summer school fees in 1991.

***Textbook fees.*** State law provides local school boards with the option of providing free textbook use to students enrolled in the district. In 1991, three districts reported collections of \$820,000 in textbook fees.

***Transportation fees.*** In 1991, school districts reported total transportation fee collections of \$1.6 million, \$913,000 from individuals and \$663,000 from districts. Prior to 1991, fees charged to transport students from their residences to their school of attendance reduced a district's reimbursement for transportation. Fees may now be imposed without such a reduction, but only with the approval of the electorate and only up to specified amount.

***Tuition.*** Districts may receive tuition revenue from a variety of sources, including students who live outside the boundaries of the district, adult students, or other districts. In 1991, school districts statewide collected \$5.1 million in tuition, \$2.6 million from individuals and \$2.5 million from other districts.



Table 6

## 1991 Per Pupil Revenue from Additional Local General Fund Sources

COUNTY	DISTRICT	SPECIFIC OWNER TAX	DEL TAX PENALTIES/ INTEREST	TUITION FROM INDIV	TUITION FROM DISTRICTS	TRANS FEES INDIV	TRANS FEES DISTRICTS	EARNINGS ON INVESTS	TEXT BOOK FEES	SUMMER SCHOOL FEES	OTHER LOCAL REVENUE	TOTAL LOCAL REVENUE
ADAMS	MAPLETON	144	29	0	0	0	0	34	0	0	24	232
ADAMS	NORTHGLENN	88	7	14	0	0	0	33	0	0	100	242
ADAMS	COMMERCE CITY	109	20	2	1	0	0	73	0	2	75	281
ADAMS	BRIGHTON	132	60	14	0	0	0	88	0	0	98	392
ADAMS	BENNETT	114	158	0	0	0	0	71	0	0	15	358
ADAMS	STRASBURG	134	375	19	0	0	0	59	0	0	0	586
ADAMS	WESTMINSTER	109	4	14	5	0	0	48	0	1	29	212
ALAMOSA	ALAMOSA	108	0	13	0	0	0	16	0	0	15	153
ALAMOSA	SANGRE DECRISTO	169	0	0	0	0	0	83	0	0	93	346
ARAPAHOE	ENGLEWOOD	148	16	3	12	0	0	47	0	0	64	289
ARAPAHOE	SHERIDAN	131	44	21	0	0	0	36	0	0	28	260
ARAPAHOE	CHERRY CREEK	271	0	1	9	1	0	48	0	9	22	361
ARAPAHOE	LITTLETON	137	2	7	0	0	0	85	0	0	48	278
ARAPAHOE	DEER TRAIL	220	227	0	0	0	0	466	0	3	177	1,093
ARAPAHOE	AURORA	125	8	0	8	0	0	37	0	0	29	207
ARAPAHOE	BYERS	171	19	0	0	0	0	77	0	0	270	537
ARCHULETA	ARCHULETA	157	49	0	0	0	0	40	0	0	30	276
BACA	WALSH	187	24	0	0	0	0	55	0	0	19	285
BACA	PRITCHETT	151	18	0	0	0	0	154	0	0	495	816
BACA	SPRINGFIELD	150	31	0	0	0	0	49	0	0	119	349
BACA	VILAS	278	14	0	0	0	0	260	0	0	207	759
BACA	CAMPO	180	10	1	0	0	0	98	0	0	370	659
BENT	LAS ANIMAS	98	8	0	0	0	0	31	0	0	10	146
BENT	MCCLAVE	197	0	0	0	0	0	234	0	0	72	503
BOULDER	ST VRAIN	116	0	1	6	0	0	49	0	0	3	176
BOULDER	BOULDER	211	33	1	9	1	0	49	0	4	83	391
CHAFFEE	BUENA VISTA	239	2	0	0	0	0	34	0	0	6	281
CHAFFEE	SALIDA	181	22	0	0	0	0	50	0	0	7	261
CHEYENNE	KIT CARSON	486	11	0	0	0	0	132	0	0	195	824
CHEYENNE	CHEYENNE R-5	253	9	0	0	0	0	141	0	0	69	472
CLEAR CREEK	CLEAR CREEK	238	34	4	6	0	0	50	0	1	22	355
CONEJOS	NORTH CONEJOS	64	0	0	0	0	0	45	0	0	0	109
CONEJOS	SANFORD	61	135	0	0	0	0	82	0	0	5	283
CONEJOS	SOUTH CONEJOS	142	178	0	5	0	8	19	0	0	35	387
COSTILLA	CENTENNIAL	119	388	0	0	0	0	93	0	0	21	622
COSTILLA	SIERRA GRANDE	213	231	0	0	0	0	101	0	0	260	805
CROWLEY	CROWLEY	120	9	0	0	0	0	64	0	0	34	226

Table 6

## 1991 Per Pupil Revenue from Additional Local General Fund Sources

COUNTY	DISTRICT	SPECIFIC OWNER TAX	DEL TAX PENALTIES/ INTEREST	TUITION FROM INDIV	TUITION FROM DISTRICTS	TRANS FEES INDIV	TRANS FEES DISTRICTS	EARNINGS ON INVESTS	TEXT BOOK FEES	SUMMER SCHOOL FEES	OTHER LOCAL REVENUE	TOTAL LOCAL REVENUE
CUSTER	WESTCLIFFE	345	0	114	0	0	0	78	0	0	24	561
DELTA	DELTA	123	7	0	0	0	0	22	0	0	11	163
DENVER	DENVER	268	22	0	2	0	0	52	0	0	35	361
DOLORES	DOLORES	180	13	0	0	0	0	48	0	0	29	270
DOUGLAS	DOUGLAS	223	51	17	1	1	1	52	0	1	40	366
EAGLE	EAGLE	329	39	0	0	0	0	142	0	0	25	535
ELBERT	ELIZABETH	171	7	2	0	0	0	29	0	0	7	216
ELBERT	KIOWA	198	11	0	0	0	0	125	0	0	105	439
ELBERT	BIG SANDY	114	8	0	0	0	0	64	0	0	58	244
ELBERT	ELBERT	122	8	0	0	0	0	141	0	0	13	285
ELBERT	AGATE	581	44	0	0	0	0	349	0	0	47	1,021
EL PASO	CALHAN	100	15	0	0	0	0	81	0	0	8	204
EL PASO	HARRISON	111	49	2	21	0	0	117	0	1	43	345
EL PASO	WIDEFIELD	69	4	17	17	0	0	43	0	2	26	179
EL PASO	FOUNTAIN	34	2	0	4	0	0	116	0	1	15	172
EL PASO	COLORADO SPRINGS	163	13	27	0	0	0	72	0	5	8	289
EL PASO	CHEYENNE MOUNTA	215	24	3	0	0	0	87	0	4	9	343
EL PASO	MANITOU SPRINGS	148	17	0	0	0	0	27	0	0	0	192
EL PASO	ACADEMY	131	3	26	0	0	0	3	0	0	17	180
EL PASO	ELLCOTT	86	10	0	0	0	0	44	0	0	9	148
EL PASO	PEYTON	110	19	0	0	0	0	49	0	0	147	326
EL PASO	HANOVER	312	30	0	0	0	0	0	0	0	107	448
EL PASO	LEWIS-PALMER	127	6	1	6	0	0	38	0	0	8	185
EL PASO	FALCON	144	0	10	0	0	0	23	0	0	16	192
EL PASO	EDISON	286	20	0	0	0	0	31	0	0	38	375
EL PASO	MIAMI-YODER	111	13	0	0	0	0	113	0	0	30	267
FREMONT	CANON CITY	133	13	7	0	0	0	41	0	0	21	216
FREMONT	FLORENCE	121	14	0	0	0	0	16	0	0	39	190
FREMONT	COTOPAXI	363	8	0	0	0	0	75	0	0	8	453
GARFIELD	ROARING FORK	189	12	1	66	0	0	29	0	0	12	310
GARFIELD	RIFLE	102	0	0	0	0	0	68	0	0	15	185
GARFIELD	PARACHUTE	494	3	0	0	0	0	193	0	0	34	724
GILPIN	GILPIN	188	9	0	0	0	0	56	0	0	129	382
GRAND	WEST GRAND	273	37	0	0	0	0	81	0	0	16	408
GRAND	EAST GRAND	234	223	3	0	0	0	43	0	0	13	514
GUNNISON	GUNNISON	239	29	0	81	0	6	48	0	0	1	404
HINSDALE	HINSDALE	477	42	0	0	0	0	195	0	0	102	816

Table 6

## 1991 Per Pupil Revenue from Additional Local General Fund Sources

COUNTY	DISTRICT	SPECIFIC OWNER TAX	DEL TAX PENALTIES/ INTEREST	TUITION FROM INDIV	TUITION FROM DISTRICTS	TRANS FEES INDIV	TRANS FEES DISTRICTS	EARNINGS ON INVESTS	TEXT BOOK FEES	SUMMER SCHOOL FEES	OTHER LOCAL REVENUE	TOTAL LOCAL REVENUE
HUERFANO	HUERFANO	162	52	0	0	0	0	112	0	0	3	328
HUERFANO	LA VETA	122	111	0	0	0	0	86	0	0	22	341
JACKSON	NORTH PARK	421	32	0	0	0	0	96	0	0	37	586
JEFFERSON	JEFFERSON	174	6	1	3	10	7	19	11	4	55	288
KIOWA	EADS	166	22	1	0	0	0	46	0	0	54	288
KIOWA	PLAINVIEW	348	23	0	0	0	0	485	0	0	147	1,003
KIT CARSON	ARRIBA-FLAGLER	222	20	0	0	0	0	54	0	0	211	507
KIT CARSON	HI PLAINS	345	21	0	0	0	0	131	0	0	40	537
KIT CARSON	STRATTON	168	24	0	0	0	0	122	0	0	62	376
KIT CARSON	BETHUNE	253	18	0	0	0	0	82	0	0	230	583
KIT CARSON	BURLINGTON	163	12	0	0	0	0	37	0	0	73	285
LAKE	LAKE	123	15	0	0	0	0	26	0	5	72	241
LA PLATA	DURANGO	222	3	1	12	0	0	42	0	2	21	303
LA PLATA	BAYFIELD	175	28	0	0	0	0	30	0	0	14	247
LA PLATA	IGNACIO	150	12	0	24	0	0	205	0	0	147	538
LARIMER	POUDRE	179	5	1	0	0	0	28	0	0	15	229
LARIMER	THOMPSON	102	0	1	1	0	0	46	0	0	21	171
LARIMER	ESTES PRK	370	38	0	0	0	0	58	0	0	66	532
LAS ANIMAS	TRINIDAD	98	7	0	0	0	0	194	0	0	30	328
LAS ANIMAS	PRIMERO	482	2	0	0	0	0	162	0	0	126	771
LAS ANIMAS	HOEHNE	236	29	0	0	0	0	331	0	0	62	657
LAS ANIMAS	AGUILAR	266	23	0	0	0	0	57	0	0	85	431
LAS ANIMAS	BRANSON	853	0	0	0	0	0	217	0	0	272	1,341
LAS ANIMAS	KIM	349	12	0	0	0	0	258	0	0	57	676
LINCOLN	GENOA-HUGO	223	13	0	0	0	0	35	0	0	158	429
LINCOLN	LIMON	181	34	0	0	0	0	62	0	0	16	292
LINCOLN	KARVAL	151	10	0	0	0	0	151	0	0	2	314
LOGAN	VALLEY	102	11	3	8	0	0	18	0	0	10	154
LOGAN	FRENCHMAN	154	0	0	0	0	59	51	0	0	273	536
LOGAN	BUFFALO	121	0	0	0	0	0	105	0	0	181	407
LOGAN	PLATEAU	254	65	218	0	0	0	218	0	0	39	794
MESA	DEBEQUE	489	7	0	0	0	0	233	0	0	22	750
MESA	PLATEAU	130	40	0	0	0	179	0	0	0	23	372
MESA	MESA VALLEY	94	10	3	4	0	0	23	0	2	16	152
MINERAL	CREEDE	546	88	0	0	0	0	614	0	0	166	1,414
MOFFAT	MOFFAT	156	11	0	7	0	0	126	0	0	30	331
MONTEZUMA	MONTEZUMA	175	1	0	0	27	0	47	0	5	115	370

Table 6

## 1991 Per Pupil Revenue from Additional Local General Fund Sources

COUNTY	DISTRICT	SPECIFIC OWNER TAX	DEL TAX PENALTIES/ INTEREST	TUITION FROM INDIV	TUITION FROM DISTRICTS	TRANS FEES INDIV	TRANS FEES DISTRICTS	EARNINGS ON INVESTS	TEXT BOOK FEES	SUMMER SCHOOL FEES	OTHER LOCAL REVENUE	TOTAL LOCAL REVENUE
MONTEZUMA	DOLORES	108	9	0	0	0	58	0	0	0	32	204
MONTEZUMA	MANCOS	114	0	0	0	0	0	78	0	0	34	226
MONTROSE	MONTROSE	113	8	0	12	0	0	43	0	2	14	190
MONTROSE	WEST END	229	7	11	0	0	0	33	0	0	54	334
MORGAN	BRUSH	216	34	0	0	0	0	50	0	0	7	307
MORGAN	FT MORGAN	89	0	0	8	0	0	13	0	0	12	102
MORGAN	WELDON	138	211	0	0	0	0	287	0	0	61	677
MORGAN	WIGGINS	144	0	0	0	0	0	57	0	0	83	283
OTERO	EAST OTERO	108	0	0	0	0	0	40	0	0	39	187
OTERO	ROCKY FORD	111	3	0	0	0	0	128	0	0	27	269
OTERO	MANZANOLA	78	8	0	0	0	0	42	0	0	25	147
OTERO	FOWLER	131	2	0	0	0	10	17	0	0	22	183
OTERO	CHERAW	97	4	0	0	0	0	41	0	0	181	333
OTERO	SWINK	112	0	0	14	0	0	41	0	0	32	198
OURAY	OURAY	322	27	0	0	0	0	75	0	0	52	476
OURAY	RIDGWAY	258	23	0	0	0	0	78	0	0	90	445
PARK	PLATTE CANYON	145	10	0	0	0	0	8	0	0	178	341
PARK	PARK	595	121	4	0	0	0	67	0	0	5	791
PHILLIPS	HOLYOKE	200	10	0	0	0	0	47	0	0	15	273
PHILLIPS	HAXTUN	214	15	0	0	0	0	80	0	0	35	344
PITKIN	ASPEN	434	29	51	0	0	0	84	0	0	24	622
PROWERS	GRANADA	98	18	0	0	0	0	274	0	0	72	460
PROWERS	LAMAR	91	6	0	0	0	0	37	0	0	11	145
PROWERS	HOLLY	128	9	0	0	0	0	75	0	0	287	500
PROWERS	WILEY	119	10	0	0	0	0	97	0	0	75	301
PUEBLO	PUEBLO CITY	84	8	2	7	0	0	28	0	4	21	153
PUEBLO	PUEBLO RURAL	124	27	0	1	0	0	19	0	3	86	261
RIO BLANCO	MEEKER	65	2	0	0	0	0	77	0	0	38	182
RIO BLANCO	RANGELY	213	1	0	196	0	0	282	0	0	3,116	3,808
RIO GRANDE	DEL NORTE	226	55	0	0	0	1	75	0	0	6	363
RIO GRANDE	MONTE VISTA	86	0	0	0	0	0	23	0	0	9	118
RIO GRANDE	SARGENT	172	34	0	0	0	0	59	0	0	10	275
ROUTT	HAYDEN	221	10	0	1	0	0	134	0	0	10	375
ROUTT	STEAMBOAT SPRING	271	38	1	0	0	0	85	0	0	84	478
ROUTT	SOUTH ROUTT	241	24	0	0	0	0	92	0	0	12	370
SAGUACHE	MTN VALLEY	180	23	0	0	0	0	44	0	0	70	317
SAGUACHE	MOFFAT	497	199	0	0	0	0	128	0	0	4	828

Table 6

## 1991 Per Pupil Revenue from Additional Local General Fund Sources

COUNTY	DISTRICT	SPECIFIC OWNER TAX	DEL TAX PENALTIES/ INTEREST	TUITION FROM INDIV	TUITION FROM DISTRICTS	TRANS FEES INDIV	TRANS FEES DISTRICTS	EARNINGS ON INVESTS	TEXT BOOK FEES	SUMMER SCHOOL FEES	OTHER LOCAL REVENUE	TOTAL LOCAL REVENUE
SAGUACHE	CENTER	112	39	1	0	0	7	41	0	0	22	222
SAN JUAN	SILVERTON	242	48	0	0	0	0	151	0	0	25	465
SAN MIGUEL	TELLURIDE	341	28	6	0	0	0	44	0	0	318	738
SAN MIGUEL	NORWOOD	84	10	0	0	0	0	37	0	0	15	147
SEDGWICK	JULESBURG	143	0	0	1	0	0	151	0	0	20	316
SEDGWICK	PLATTE VLY	242	16	0	0	0	0	217	0	0	190	664
SUMMIT	SUMMIT	306	32	29	0	0	0	156	0	4	19	547
TELLER	CRIPPLE CREEK	330	12	0	0	0	0	183	0	0	6,402	6,907
TELLER	WOODLAND PARK	150	0	0	51	0	0	39	0	0	2	242
WASHINGTON	AKRON	141	13	3	0	0	0	47	0	0	80	284
WASHINGTON	ARICKAREE	389	100	0	0	0	0	324	0	0	72	885
WASHINGTON	OTIS	148	0	0	0	0	80	0	0	0	29	257
WASHINGTON	LONE STAR	185	21	0	0	0	0	429	0	0	108	743
WASHINGTON	WOODLIN	524	48	0	0	0	0	476	0	0	111	1,159
WELD	GILCREST	164	23	0	0	0	0	48	0	0	51	284
WELD	EATON	121	16	2	0	0	0	49	0	0	43	230
WELD	KEENESBURG	135	15	2	0	0	0	84	0	0	10	248
WELD	WINDSOR	183	23	1	0	0	0	26	0	0	32	265
WELD	JOHNSTOWN	99	5	7	0	0	0	65	0	0	5	182
WELD	GREELEY	94	11	1	0	0	0	36	0	0	5	147
WELD	PLATTE VLY	174	9	0	0	0	0	65	0	0	47	295
WELD	FORT LUPTON	163	6	0	0	0	0	44	0	0	78	290
WELD	AULT-HIGHLND	121	9	0	0	0	7	33	0	0	113	283
WELD	BRIGGS DALE	282	19	0	0	0	0	178	0	0	47	526
WELD	PRAIRIE	650	35	0	0	0	0	177	0	0	186	1,049
WELD	GROVER	392	94	0	0	0	0	217	0	0	265	967
YUMA	WEST YUMA	167	19	0	0	0	0	124	0	0	265	574
YUMA	EAST YUMA	150	0	0	0	0	0	105	0	0	200	454
YUMA	EAST YUMA	166	15	5	4	2	1	48	1	2	46	290
**STATE TOTAL**												

**Other local revenue.** The other local revenue category is a "catch all" for local revenue that does not meet the criteria for any of the other local revenue sources. It may include money received from the rental of school property, contributions and donations from private sources, revenue from the sale of school property, revenue from services provided other school districts, and revenue received from fines and telephone coin box commissions. This catch all category accounted for \$25.3 million in 1991.

### **Recommendations and Issues for Consideration**

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Some general fund revenue streams from local sources are generated through fees. It could be argued that each of these revenue sources is tied to the provision of a particular service. **Tuition, transportation fees, and summer school fees** appear to fall into this category. Revenue from these sources provide insignificant amounts of money when examined from a statewide perspective. Of the \$159.8 million in total additional local revenue, 4.8 percent, or \$7.7 million, was comprised of these revenue sources. To some degree, state law limits the amount of revenue that can be generated from these sources. Summer school fees are limited to per pupil operating costs. Tuition charged other districts cannot exceed 120 percent of the per pupil general fund cost in the district of attendance. With respect to transportation, the General Assembly declared in House Bill 91-1280 that:

*...the provision of transportation for pupils is not required by the constitution as a part of a thorough and uniform system of free public schools and that any school district which provides transportation may pay the costs incurred in doing so through any means authorized by the general assembly...*

Transportation fees must be approved by the electorate of the district and the total of such fees is limited to the difference between the program cost and the amount reimbursed. **Textbook fees** appear to be somewhat different from the three revenue sources discussed above in that there are no limitations on such fees or requirements for their usage.

The use of fees by districts to pay for specific program costs reduces the need for greater general fund subsidy of these programs, freeing up money for other uses. It could also be argued that some districts have more flexibility in imposing fees than others because of the nature of their districts. Tuition and fees for transportation, summer school, and textbooks constitute a relatively small portion of additional local revenue to school districts (5.3 percent), however. The use of these fees is also sporadic. Thus, we have no recommendations to make at this time for equalization of these particular revenue sources. If these revenue sources are of concern to the General Assembly, legislation limiting their application or amount may be a more appropriate remedy than equalization. It should be noted, however, that while fees collected by school districts

would be subject to the spending limitations in section 20 of article X of the state constitution, districts are not otherwise limited in their ability to increase fees. The data used in this report and in the preliminary report precede the adoption of this constitutional amendment. Fees may become more widely used as a revenue source in the future than they are now.

**Delinquent taxes, penalties, and interest** are probably better classified as property tax revenue than as an additional revenue source for purposes of this report. For the vast majority of districts, revenue collections from this source simply reflect property taxes not collected in prior years. We have no recommendations for equalizing this revenue source.

**Earnings on investments** constitute a larger share of additional revenue than those previously mentioned -- 16.5 percent. We have two reasons for not making a recommendation for equalizing this revenue source. First, the data available precede the change in the fiscal year. The change in the fiscal year to a July-June cycle, rather than a calendar year cycle, could dramatically alter investment earnings, both in terms of dollar amount and incidence. When the calendar year cycle was in effect, it was argued that property wealthy districts benefitted more from investment earnings because they received a larger share of their revenue in the first half of the year when property taxes were due. This phenomenon enabled these districts to invest money until the latter part of the year when it was needed. Districts that were more state aid dependent would not have this option available to them. Property taxes are now payable in the second half of the school district fiscal year. Now, many districts are borrowing in the beginning of the fiscal year to meet their cash flow needs. Second, investment earnings are not statutorily required to be credited to the fund that earned the interest. Therefore, investment earnings in the general fund may reflect revenue actually earned on the fund, or it could reflect revenue needed in the fund.

In 1991, all but two districts reported revenue from **other local sources**, for a total of \$25.3 million statewide. The range in revenue per pupil from this source in 1991 was significant, from \$6,402 in the highest district to zero. The range of per pupil revenue in 1991 exceeded by more than tenfold the range that existed in 1990. This range highlights the questions that remain about the derivation of this revenue (also see Chapter II). We have no recommendations to submit regarding the equalization of this category of revenue.

**Specific ownership tax** revenue appears to differ markedly from the other local revenue sources discussed in this section. Specific ownership tax rates and allocation are detailed in state law. Since the distribution is based on property tax receipts of the district, it is a more likely candidate for equalization than the other revenue. Correlation analysis of specific ownership tax revenue per pupil and assessed value per pupil revealed coefficients of 0.6974 in 1990 and 0.6634 in 1991, which indicates that specific ownership tax revenue tends to increase as assessed values per pupil increase and *vice versa*. Given

the relationship between property taxes and specific ownership taxes, and the equity issues raised by such a relationship, it is recommended that:

*the General Assembly consider some method of equalizing specific ownership taxes. Options for equalization of this revenue source include the following.*

- (1) County treasurers could be required to remit the school district portion of the specific ownership tax to the state for distribution through the school finance act. The specific ownership tax receipts so remitted could be deposited in the state public school fund. State funding for school districts would be increased by the amount of the specific ownership tax receipts deposited in the fund.
- (2) Similar to the property tax, specific ownership tax receipts could be considered part of the local contribution applied to a district's total program.
- (3) The General Assembly could equalize a specified dollar amount per pupil. In effect, each district would be guaranteed a minimum amount of revenue from the specific ownership tax. That which is not provided from the tax source would be provided by the state.

Options 1 and 2 envision that specific ownership tax receipts would become part of the school finance act, while option 3 allows the tax revenue to remain outside the act. The universe of specific ownership taxes considered could be either all such tax receipts, or just those receipts attributable to the general fund levy.

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#### FEDERAL IMPACT AID (P.L. 874)

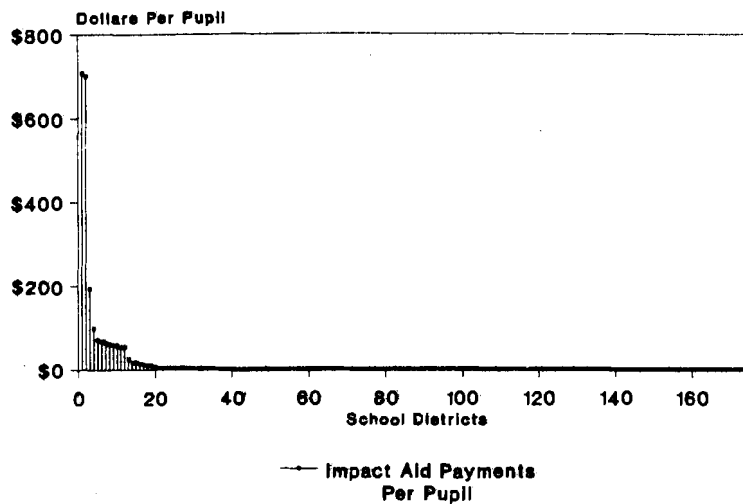
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Impact aid is provided to school districts when the tax base of the district is reduced due to the acquisition of property by the federal government or the presence of Native American reservations, or when federal projects or activities increase the number of children a district must educate. Districts may expend funds received under P.L. 874 at their discretion, with the exception of funds received for disabled children with a parent on active military duty or disabled Native American children. In 1991, 42 Colorado school districts received a total of \$8.9 million in unrestricted impact aid funds.<sup>4</sup> In the districts receiving this revenue, funding per pupil ranged from approximately \$700 to less than \$1 (see Graph 6).



**Graph 6**  
**1991 UNRESTRICTED IMPACT AID**  
**REVENUE PER PUPIL**



In general, states are prohibited from: (1) considering impact aid payments in determining the eligibility or amount of state aid to any district; and (2) using impact aid as a basis for providing less funds to a district than it would have received if it were not eligible for revenue under the act. Impact aid payments to all districts in a state would cease if a state pursued either of these two avenues. However, impact aid payments may be taken into account by a state if a program of state aid for free public education designed to equalize expenditures among school districts is in effect. The payments may be taken into consideration in determining the relative financial resources available to and financial need of school districts. Application to and approval from the Secretary of Education is required to consider impact aid in a state equalization formula. Three general criteria must be met to make a determination as to whether a program of state aid is "designed to equalize expenditures for free public education." The program must: (1) be authorized by state law; (2) provide for the apportionment of aid among school districts; and (3) consider the relative financial resources of districts in distributing aid.<sup>5</sup> In addition to these three criteria, a state program must also meet one of the three additional standards: disparity, wealth neutrality, or exceptional circumstances. Each of these standards is discussed in greater detail in the following paragraphs.

**Disparity limits.** For a state aid program to meet the federal requirements for equalization under the disparity test, the range of revenue or expenditures per pupil among school districts in the state may not exceed 25 percent for the fiscal year of application. Revenue/expenditures from state and local sources is used to calculate the applicable per pupil amount. In addition, the amount of unequalized P.L.874 revenue is included, and other federal revenue is included if not tied to a specific program. Certain special cost differentials are excluded from the computation of the per pupil figure. These are described below. The determination of disparity is made by ranking school districts by

revenue or expenditures per pupil, identifying the districts which fall at the 95th and 5th percentiles of the total number of pupils, and calculating the percentage difference between the two figures.

**Wealth neutrality test.** The wealth neutrality test requires that at least 85 percent of the total revenue for operating expenditures (excluding debt service, capital outlay, and Title I funds) for all school districts in the state be "wealth neutral" revenue. Wealth neutral revenue is revenue received by a district that is not the result of a wealth advantage. State and local revenue received under a school finance equalization program and local revenue from tax sources other than the school finance act are considered wealth neutral if each school district receives the same amount of dollars per pupil for the same tax effort and is allowed to spend as much per pupil as any other school district in the state. Other state revenue received for specific programs and other non-tax local revenue is considered wealth neutral when each school district receives the same dollar amount per pupil and, for local revenue, is allowed to spend the same amount of dollars per pupil of such revenue. As with the disparity test, state and local revenue covered under the school finance act and state revenue received from other programs that are also associated with certain special cost differentials are excluded from the calculation of wealth neutral revenue. The percent of wealth neutral revenue is determined by dividing total wealth neutral revenue in a state by total applicable revenue.

**Exceptional circumstances.** A state program which does not conform to either of the above criteria may qualify if the Secretary of Education determines that there are exceptional circumstances relating to disparity or wealth neutrality or that taking impact aid payments into account will result in more equalization. In making a determination that a state aid program is designed to equalize expenditures under the exceptional circumstances test, the Secretary of Education must find that: (1) the amount of revenue available to school districts is not predominantly a function of local wealth; (2) the program provides financially adequate educational programs and supportive services for every pupil enrolled in public school; (3) the program provides for identifying pupils with special educational needs and for considering special cost differentials (discussed below); (4) the program involves a substantial percentage of school revenue; and (5) the program provides systems and procedures for evaluating the degree to which it is achieving its stated objectives.

**Allowable cost differentials.** There are two categories of cost differentials for which adjustments may be made in determining whether a state aid program is designed to equalize expenditures. The first category includes differences in cost associated with pupils having special educational needs, such as handicapped children, economically disadvantaged children, non-English speaking children, and gifted and talented children. The second category includes costs associated with sparsity or density of population, cost of living, or special socioeconomic characteristics within the area served by a school district. In performing the **disparity** test, adjustments may be made for cost differentials that are accommodated through the use of weighted pupil, classroom, or instructional unit funding formulas. With respect to the **wealth neutrality** test, any extra yields due

to these special cost differentials are considered wealth neutral as long as they are established by state law. In the **exceptional circumstances** test, the special cost factors must be used to determine the relative financial need of school districts.

***Limitations on impact aid revenue that may be equalized.*** In allocating state aid, a state may consider P.L. 874 revenue only in proportion to the share that local revenues covered under a state equalization program are of total local revenue.<sup>6</sup> This proportion is obtained by dividing the local revenue of a district covered under the state equalization program by the district's total local revenues used for operating expenditures. This determination must be made on a district-by-district basis. In addition, the state may not take into consideration increases in payments in the following instances:

- the 50 percent add-on for children with disabilities and children with specific learning disabilities for whom programs are designed to meet special educational and related needs;
- the 25 percent add-on for children residing on Native American lands;
- any additional funds received by a district in which at least 50 percent of the children are eligible for impact aid funding and for which the Secretary of Education has determined that the revenue available to the school district is insufficient (heavily impacted school districts); and
- any additional funds received by a school district after a finding by the Secretary of Education that funding is insufficient because of unusual geographic factors.

Finally, a state aid program cannot qualify as a program "designed to equalize expenditures for free public education" if a final order of a state court has found that the program does not do so or otherwise violates a law.

***State application process.*** Any state that wishes to take P.L. 874 revenue into consideration in its equalization program must submit notice to the Secretary of Education at least 60 days prior to the beginning of the fiscal year. An application is required for each year in which such consideration is requested. The state educational agency (in Colorado, the department of education) or any other appropriate state agency may submit such notice on behalf of the state. The notice must be accompanied by information that will enable the Secretary to determine whether the state has in effect a program of state aid for free public education which is designed to equalize expenditures. Thus, the state must demonstrate that its program meets the three general criteria listed above and one of the three specific tests (disparity, wealth neutrality, or exceptional circumstances). The state must also indicate, for each school district receiving P.L. 874 funds, the proportion of those funds which will be taken into consideration. The notice must also be accompanied by evidence that each school district in the state has been notified of the state's intention. Prior to any resolution of a state's application, an opportunity for a hearing will be afforded to any school district adversely affected by the state's request.

A state's application may be referred to a hearing officer or a hearing panel designated by the Secretary. In such instances, the officer or panel forwards an initial decision to the Secretary, who may review the decision or certify it as the final decision. If the original decision is modified or reversed by the Secretary, a notice of that action must be accompanied by a written statement of the grounds for reversal or modification. The final decision must be provided to all parties involved, including all parties to any hearing, the hearing panel, and any school district adversely affected by the decision. Federal impact aid payments will not be suspended or terminated until a final decision is rendered.

**Submission of data.** A state has two options with respect to the data it submits for a determination on whether federal impact aid may be taken into consideration in a state program. It may submit data for the fiscal year preceding the fiscal year of application if the same program was then in effect, or it may submit estimates of data for the fiscal year of application. Data submitted must be the most currently available and complete data, whether based on expenditures or revenue. A preliminary determination would be made if estimated data were submitted. However, projections must be adjusted by actual data as soon as such figures are available for the purpose of verification. Final financial data could result in a determination that the state should not have been approved. In such instances, impact aid payments to school districts would terminate unless the state agreed to restore any state aid that was denied because of the equalization of such payments.

### **Recommendations and Issues for Consideration**

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Unrestricted federal impact aid represents a very small portion of school district revenue statewide, only \$8.9 million in 1991. However, per pupil funding in some districts is significantly increased because of this revenue stream. It is recommended that:

*the General Assembly consider beginning the application process for equalization of federal Public Law 81-874 revenue if there is concern about this revenue being a disequalizing influence on funding for public schools.*

There are some issues the General Assembly may want to consider in making a determination about whether to apply and the timing for such an application. It is likely that any data submitted in the application process would be estimated because the compilation of actual school district revenue and expenditure data lag the close of the fiscal cycle by almost one year. The use of estimates may result in a state program being disqualified when final data become available.

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## **CHAPTER IV**

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## **CHAPTER IV**

Chapter IV focuses on the provisions of Senate Bill 93-87 relating to Amendment No. 1. The bill requires an evaluation of the impacts of section 20 of article X of the state constitution on school district setting categories, including:

- consideration of how the criteria for setting categories would be impacted if the different funding sources were combined for purposes of school finance funding;
- consideration of the impact of including federal revenues received by school districts when determining the funding for public education in this state; and
- recommended procedures for modifying setting categories and for reassigning districts between categories and for the implementation of such modifications and reassignments consistent with section 20 of article X of the state constitution.

Since setting categories are not being recommended for allocating revenue to school districts, issues relating to the interaction of Amendment No. 1 and setting categories are moot. However, the broader issues relating to the distribution of money to a governmental entity whose spending authority is limited are not resolved when setting categories are discounted. These include the questions relating to the distribution of revenue under any new school finance act that might be contemplated, as well as treatment of other sources of revenue. These issues are discussed briefly in the following pages. Since recommendations were not specifically requested of us in these areas, this discussion serves only as a point of departure for future deliberations.

### **Amendment No. 1 Spending Limitation**

Section 20 of article X of the state constitution was approved by the electorate in the November, 1992 general election. Although the constitutional amendment includes a variety of provisions relating to the fiscal affairs of the state and local governments, the focus of this chapter is the limitation on spending. School districts are included in this limitation by virtue of their status as local governments. The amendment provides that the maximum annual percentage change in each school district's fiscal year spending is equal to inflation in the prior calendar year plus annual local growth. Adjustments may be made for: (1) property tax revenue changes approved by voters; and (2) reductions that occur because of the enactment of cumulative uniform exemptions and credits that reduce or end business personal property taxes. Voters may approve spending limit

adjustments in a state general election, a biennial local district election, or on the first Tuesday in November of odd-numbered years.

For purposes of the amendment, "inflation" is defined as the percentage change in the U.S. Bureau of Labor Statistics Consumer Price Index (CPI) for Denver-Boulder, all items, all urban consumers. "Local growth" for a school district is the percentage change in student enrollment. "Fiscal year spending" includes all district expenditures and reserve increases. Notable exclusions from the definition of fiscal year spending include gifts, federal funds, reserve transfers or expenditures, damage awards, and property sales.

When revenue from sources not excluded from fiscal year spending exceeds the spending limit for a given fiscal year, the excess must be refunded in the next fiscal year unless the voters approve a revenue change as an offset. The use of any reasonable method is permitted for refunds, including temporary tax credits or rate reductions.

### **School Finance Act Revenue**

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The potential of a new school finance act raises issues with respect to Amendment No. 1 that might not otherwise exist. Looked at in isolation, the continued use of an existing funding mechanism would not appear to be a cause of concern *vis a vis* the constitutional amendment. However, a new school finance act raises the specter of formula funding increases that may exceed the constitutional spending limitations. School districts would be unable to spend, or place into a reserve, revenue increases in excess of the expenditure limit without voter approval. In the event revenue exceeded the spending limitation, Amendment No. 1 would require that the difference between the two be refunded to the taxpayers. With the exception of the Denver school district, school district elections to adjust the spending limitation can only occur in November, midway through the state fiscal year.

It would appear that any new school finance act will have to include provisions to accommodate the constitutional spending limitation. One option might be a phase in, similar to the phase in included in the Public School Finance Act of 1988. The maximum increases in formula funding for school districts could be limited to the percentage increase allowed by the amendment. This option assumes that, over time, the inflation adjustment authorized in the amendment would exceed actual formula funding adjustments provided by the General Assembly. The option could be expanded to permit increases in funding up to the formula allocation in the year following a local election to adjust the spending limit, to the extent state resources are available. This alternative would permit school districts to achieve their funding allocation earlier, and also instill some certainty in the state budgetary process.

## **Other Sources of Revenue**

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The constitutional amendment adopted by the electorate addresses total school district spending, including revenue which has traditionally been beyond the scope of the school finance act. While the preceding paragraphs discuss the impact of the spending limitation on revenue allocations under a new school finance act, other sources of revenue result in a school district exceeding its revenue limitation. Three types of revenue streams can be characterized as other source revenue: federal revenue, state categorical aid, and revenue from local sources other than the property tax.

**Federal revenue.** While there may be issues relating to the equalization of specific federal revenue sources, the universe of federal revenue does not appear to be an Amendment No. 1 issue. The constitutional amendment specifically excludes federal funds from the definition of fiscal year spending.

**State categorical aid.** State categorical support funds are provided in five areas: special education, transportation, increasing enrollment, vocational education, and English language proficiency. A change in services provided or the student population served under these programs could affect the level of funding received by a district. Increases in state appropriations for these programs could also alter revenue received by a district. These are just two examples of changes that might put a school district's revenue in conflict with the Amendment No. 1 spending limitation. It appears that the General Assembly has several options regarding state categorical aid, three of which are outlined below.

- (1) The General Assembly could continue distributing revenue under the existing formulas, assuming that school districts would adjust other sources of revenue to stay within their applicable spending limits.
- (2) The General Assembly could incorporate funding for categoricals into the school finance act, either through increasing the base by the appropriate state aid amount, developing formulas within the school finance act to distribute the categorical aid, or including revenue received by a district in the prior year's base.
- (3) The current formulas for disbursing categorical aid could be left in place, but the General Assembly could include those revenue streams with revenue received under the school finance act.



Options 2 and 3 differ from option 1 in that the General Assembly could limit the total amount of revenue received from state sources to that allowed under the spending limit. Option 1 would leave decisions relating to excess revenue to local school district discretion.

In resolving issues relating to state categorical aid, the General Assembly may wish to consider the goals each categorical program seeks to achieve, the extent to which services are required, and the degree to which factors such as cost of living and cost associated with enrollment size should be accounted for in allocating aid. For example, the provision of educational services to children with handicapping conditions is required by both state and federal law. Possible goals for a special education funding system might include: assuring that funding does not direct the provision of services to special education students, but permits the most efficient and flexible service delivery system; minimizing administrative overburden; and maintaining local control. In contrast to special education, transportation services are provided without a corresponding state mandate. State aid is provided based on local districts decisions on whether transportation will be offered and the distance students will be transported. Increasing enrollment funding is provided to accommodate growth in the student population from the time the pupil count is taken for school finance purposes and the beginning of the school year. Programs are required to be provided to students whose dominant language is not English under the English Language Proficiency Act, but vocational education programs are offered at the option of the school district. However, the possible goals listed for special education funding may coincide with goals for vocational education funding.

***Local source revenue.*** Additional general fund revenue from local sources is described in detail in Chapter III, and includes revenue from tuition, fees, specific ownership taxes, earnings on investments, and a catch-all category of other local revenue. With the exception of specific ownership tax revenue, school districts exert considerable influence over the revenue received from these sources. To the extent specific ownership taxes become an equalized source of revenue, the Amendment No. 1 issues raised in the preceding paragraphs begin to apply.

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## CHAPTER V

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## **CHAPTER V**

Senate Bill 93-87 directs the Legislative Council to conduct a study of the impact of the state not fully reimbursing categorical programs (section 22-53-105.5, C.R.S.). The allocation guidelines for five categorical programs -- special education; vocational education; English Language Proficiency Act (ELPA); transportation; and increasing enrollment, are discussed below. As the allocation formulas described below indicate, funding for categorical programs is premised on school districts supplementing state categorical aid to pay the costs associated with the respective program. In instances in which actual cost data are available, appropriation data on the categorical programs for FY 1991-92 and FY 1992-93 are compared to actual program costs and reimbursable costs (see Table 7). In other instances, appropriation figures are compared to the formula reimbursement level.

### **Special Education**

The Colorado Exceptional Children's Educational Act<sup>7</sup> requires each administrative unit to make special education services available to handicapped children between the ages of three and 21. An administrative unit may be a school district, a board of cooperative services, or a combination of school districts. In FY 1990-91, 67,887 handicapped children were served by special education programs in Colorado, representing 11.82 percent of the total student population. Special education services are provided directly or on a contracted basis by each administrative unit.

Administrative units are entitled to reimbursement of up to 80 percent of approved costs such as salaries, consultation and evaluation services, in-service training, specific equipment, certain tuition fees, and mileage expenses incurred by consultants. In addition, the maintenance costs for children in licensed family care homes are 100 percent reimbursable. When the state appropriation is insufficient to fully reimburse entitlements, district allocations are proportionally reduced. In FY 1992-93, 31.6 percent of the eligible state reimbursable cost, \$153.7 million, was distributed to administrative units by the state.

## **Vocational Education**

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Any Colorado school district conducting approved vocational education courses is entitled to vocational education program support from funds appropriated by the General Assembly.<sup>8</sup> Vocational education courses are designed to provide students with entry level occupational skills and knowledge required by business and industry. In FY 1991-92, over 52,000 students were enrolled in 1,111 vocational education programs in 148 school districts. State, regional, or local technical advisory committees assist in the planning and implementation of vocational education curricula. Unlike the other categorical programs that are administered by CDE, the vocational education program is administered by the state board for community colleges and occupational education.

Vocational education categorical aid is disbursed to districts according to the full-time equivalent (FTE) cost of a program. Reimbursable program costs include instructional personnel, contracted educational services, books and supplies, and equipment. Colorado statute requires each district to pay its program costs per FTE at 70 percent of its per pupil operating revenues (PPOR). For costs exceeding 70 percent of the district's PPOR, the state will pay 80 percent of the first \$1,250, or part thereof, per FTE, and will pay 50 percent of any additional costs incurred beyond the initial \$1,250 expenditure per FTE. Statute provides that if the state appropriation is insufficient to comply with this formula, the state board shall prorate the allocations proportionally by district. For example, during the 1991-92 school year, the state appropriation was insufficient to fully fund entitlements. Therefore, the state prorated the district reimbursements at 83.3 percent of the reimbursable entitlement.

## **English Language Proficiency Act**

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The English Language Proficiency Act (ELPA)<sup>9</sup> assists districts with students in grades K through 12 whose dominant language is not English. Colorado law requires districts to identify, assess, and provide programs for students in the following classifications:

- (a) students speaking a language other than English who do not comprehend or speak English;
- (b) students comprehending or speaking some English but whose predominant language is not English; and
- (c) students comprehending and speaking English and one or more other language, whose dominant language is difficult to determine, and whose English language development and comprehension are at or below test (state or national) level.

ELPA per pupil funding is disbursed to districts for up to two years for each participating student. Seventy-five percent of the annual ELPA allocation up to \$400 or 20 percent of the state average PPOR for the preceding year, whichever is greater, shall be spent per student in categories (a) and (b). The remainder of the funding up to \$200 or 10 percent of the state average PPOR, whichever is greater, is to be spent per student in category (c). Any moneys remaining after these provisions are met, are to be spent on students in categories (a) and (b).

In FY 1992-93, 11,764 students speaking 89 languages participated in ELPA. Although the number of ELPA students increased by 11.3 percent from FY 1991-92 to FY 1992-93, state funding remained unchanged at \$2.6 million (ELPA's categorical funding amount since FY 1988-89). The number of participating districts also increased from 85 districts in FY 1991-92 to 91 districts in FY 1992-93.

### **Transportation**

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School districts are eligible for reimbursement of the cost of transporting pupils regularly enrolled in district schools between their residences and their schools.<sup>10</sup> Reimbursable costs include motor fuel and oil, vehicle maintenance costs, equipment, facilities, driver employment costs, and insurance. The state does not reimburse districts for the cost of purchasing buses or for field trips. However, to be eligible for funding, school districts must comply with state bus safety, bus maintenance, and other pupil transportation regulations. District reimbursements are determined through use of the following formula:

- 1) 37.87 cents per mile; and
- 2) 33.87 percent of the costs not payable by the initial 37.87 cents per mile allocation.

During October of each one-year entitlement period, districts receive an advance payment equal to 20 percent of reimbursement entitlement the previous year. Each district's full reimbursement entitlement, less its 20 percent advance reimbursement, is distributed in October of the following year. Statute limits district reimbursements to 90 percent of the total amount expended by a school district for operating expenditures.

The FY 1992-93 state appropriation for district transportation costs, \$32.4 million, remained the same as the FY 1991-92 appropriation. The FY 1992-93 appropriation was 36.1 percent of total district transportation costs, a decrease from the FY 1991-92 level of 38.4 percent.

### **Increased Enrollment**

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Colorado law authorizes the appropriation of additional state funds for school districts with increases in enrollment. House Bill 93-1304 outlines the FY 1993-94 appropriation guidelines for districts which have an October 1993 pupil enrollment which exceeds their funded pupil count by the lesser of three percent or 350 pupils. Such districts are eligible for categorical aid of 55 percent of their FY 1993-94 per pupil funding amounts. The per pupil funding amount is calculated by dividing a district's FY 1993-94 formula equalization program funding after any proration by its FY 1993-94 funded pupil count.

**Table 7**  
**State Categorical Funding**  
**Fiscal Years 1991-92 and 1992-93**

Categorical Aid	Fiscal Year	Total Operating Expenditures	Reimbursable Entitlement	Actual Appropriation	Appropriation as % of Total	Appropriation as % of Entitlement
Special Education	1991-92	\$251,235,434	\$142,747,194	\$48,589,983	19.34%	34.04%
	1992-93 <sup>e</sup>	262,457,179	153,695,476	48,589,983	18.51	31.61
Vocational Education	1991-92	55,382,927	17,828,000	14,845,849	26.81	83.27
	1992-93 <sup>e</sup>	56,550,723	17,648,165	15,142,766	26.78	85.80
English Language Proficiency Act*	1991-92	5,035,706	7,077,904	2,600,000	51.63	36.73
	1992-93	NR	8,161,390	2,600,000	--	31.86
Transportation	1991-92	84,617,019	42,939,609	32,454,546	38.35	75.58
	1992-93 <sup>e</sup>	90,000,000**	44,939,609	32,454,546	36.06	72.22
Increased Enrollment	1991-92	NA	22,709,666	22,709,666	NA	100.00
	1992-93	NA	20,924,943	18,448,200	NA	88.17

e Estimated

\* Total expenditure data are available from the 1991 calendar year. The reimbursable entitlement was calculated by Legislative Council staff using 20 percent and 10 percent of the PPOR for (a)(b) and (c) children, respectively. For FY 1991-92, a CY 1990 PPOR of \$3,759 was used, while for FY 1992-93, a CY 1991 PPOR of \$3,908 was used.

\*\* Total expenditures do not include district costs for capital outlay (bus purchases) or for field trips since districts may not claim these costs for state reimbursement. The reimbursable entitlement figures include the 20 percent advance payment less the prior year's advance payment.

NR: Not yet reported

NA: Not applicable

## **ENDNOTES**

- 1 Section 22-32-117(2), C.R.S.
- 2 Ligon, G. and Paredes, V., "Student Mobility Rate: A Moving Target," Austin Public Schools, Austin, Texas, 1992, p. 3.
- 3 *Ibid.*
- 4 The \$8.9 million represents vouchers attributable to 1991, regardless of when the cash was received. Districts actually reported a total of \$7.1 million in cash receipts in budget year 1991.
- 5 34 CFR 222.62
- 6 22 USC 240 (d)(2)
- 7 Article 20, title 22, C.R.S.
- 8 Article 8, title 23, C.R.S.
- 9 Article 24, title 22, C.R.S.
- 10 Article 51, title 22, C.R.S.